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July 1, 2010 – August 31, 2010

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PREFACE

This is Book I of the seventy-second volume of issuances (1–450) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Boards, Administrative Law Judges, and Office Directors. It covers the period from July 1, 2010, to August 31, 2010. Book II covers the period from September 1, 2010 to December 31, 2010.

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.

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

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

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

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UNITED STATES OF AMERICA
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In the Matter of **Docket No. 50-271-LR**

ENTERGY NUCLEAR VERMONT YANKEE, LLC and ENTERGY NUCLEAR OPERATIONS, INC.
(Vermont Yankee Nuclear Power Station) **July 8, 2010**

REGULATIONS, INTERPRETATION

The licensing board's interpretation of 10 C.F.R. §§ 54.3, 54.21, 54.29 is challenged.

RULES OF PRACTICE: *AMICUS CURIAE* BRIEFS

We welcome appellate briefs *amicus curiae* from parties in other Commission adjudications that presented or present an issue similar to the one in the case before us.

RULES OF PRACTICE: ABEYANCE; SUSPENSION OF PROCEEDING

We see no reason to postpone consideration of pending issues until the resolution of other issues unrelated to this adjudication.

RULES OF PRACTICE: STANDARDS FOR APPELLATE REVIEW

On appeal, we review legal issues *de novo.* By contrast, we generally defer to our boards' findings of fact, unless they are clearly erroneous. When we review our boards' rulings on contention admissibility, we employ the clear error and abuse of discretion standards of review.

RULES OF PRACTICE: STANDARDS FOR APPELLATE REVIEW (FACTUAL DETERMINATIONS)

We are generally disinclined to upset *fact*-driven Licensing Board determinations.

RULES OF PRACTICE: SPECIFICITY

We will not consider cursory, unsupported arguments.

RULES OF PRACTICE: GUIDANCE DOCUMENTS

A litigant opposing a licensing action is entitled to challenge the sufficiency of any guidance document on which a licensee or applicant relies, but it must do so with substantive support.

LICENSE RENEWAL: AMPS; TLAAS

Entergy modified its Fatigue Monitoring Program to be consistent with the AMP in the GALL Report and thereby satisfy 10 C.F.R. § 54.21(c)(1)(iii). It did so by removing both of the exceptions that the application had previously taken to the generic AMP in the GALL Report — including the exception that omitted any consideration of environmentally assisted fatigue from Entergy's AMP. These modifications placed the metal fatigue portion of the application within the parameters of 10 C.F.R. § 54.21(c)(1)(iii). Entergy amended its application to include the revised Fatigue Monitoring Program on September 17, 2007. The Board misunderstood Entergy's modifications and dismissed them as merely "relabeling" its demonstration in an effort to avoid its purported obligations under subsections (i) and/or (ii) of 10 C.F.R. § 54.21(c)(1). In so concluding, the Board was not correct in equating the fatigue analyses under subsections (i) and (ii) with the fatigue analyses under subsection (iii). Further, the Board failed to recognize that an applicant may use similar or identical methodology to calculate the fatigue usage factor for the TLAA and for the AMP — regardless of how it seeks to comply with section 54.21(c)(1), whether through a predictive TLAA or by the use of an AMP.

We also disagree with the Board's legal determination that CUF_{en}s are TLAAs and that the renewed license therefore may not issue without them. Our regulations in 10 C.F.R. § 54.3 define TLAAs as being contained in the current licensing basis. Because CUF_{en}s are not contained in Vermont Yankee's current licensing basis, they cannot be TLAAs and thereby a prerequisite to license renewal. The Staff's consideration of CUF_{en}s in its review of the Vermont Yankee license renewal application does not render the use of CUF_{en}s a requirement under our rules.

TECHNICAL ISSUES

The following technical issues are discussed: Metal Fatigue, Aging Management Program (AMP), Time-Limited Aging Analyses (TLAA), Cumulative Use (or Usage) Factor (CUF), Environmentally Adjusted Cumulative Use (or Usage) Factor (CUF_{en}), Environmental Adjustment Factor (F_{en}), Generic Aging Lessons Learned Report (NUREG-1801), Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants (NUREG-1800).

MEMORANDUM AND ORDER

We have before us today two petitions for review — one by the NRC Staff and the other by intervenor New England Coalition, Inc. (NEC).[1] The Staff seeks review of a Partial Initial Decision (LBP-08-25) that the Licensing Board issued in this license renewal proceeding, ruling in favor of NEC on the merits of two contentions regarding metal fatigue (Contentions 2A and 2B).[2] In addition, five nonlitigants seek permission to file a brief *amici curiae* addressing the Staff's petition.[3] We conclude that the Staff's petition satisfies our standards for review, and we also grant the nonlitigants' motion for leave to file a brief *amici curiae.* We further conclude that the Board should have decided in Entergy's

[1] NRC Staff's Petition for Review of the Licensing Board's Partial Initial Decision, LBP-08-25 (Dec. 9, 2008) (Staff Petition); New England Coalition's Petition for Review of the Licensing Board's Full Initial Decision, LBP-09-09 (July 23, 2009) (NEC Petition). The Commonwealth of Massachusetts also filed a petition for review of LBP-08-25. Commonwealth of Massachusetts Petition for Review of LBP-08-25 and Request for Consolidated Ruling (Dec. 2, 2008). We issued a separate decision addressing the issues raised in that Petition. CLI-09-10, 69 NRC 521 (2009).

[2] LBP-08-25, 68 NRC 763 (2008).

[3] Motion for Leave by the States of New York and Connecticut, Hudson Riverkeeper, Inc., Hudson River Sloop Clearwater, Inc., and the Prairie Island Indian Community to Submit Brief Amici Curiae in Opposition to Staff's Petition for Review and in Support of Intervenors State of Vermont and the New England Coalition (Dec. 19, 2008) (Nonlitigants' Motion).

favor regarding Contentions 2A and 2B. We therefore reverse those portions of LBP-08-25 addressing Contentions 2A and 2B, related to the calculation of the CUF_{en} for the core spray and reactor recirculation outlet nozzle.

Our reversal renders it unnecessary for us to consider NEC's petition for review of the Board's later decision, LBP-09-9, at least insofar as the Board there concluded that NEC's newly filed contention (Contention 2C) was inadmissible.[4] We nonetheless exercise our discretion to consider the substance of NEC's arguments regarding Contention 2C and find them to be without merit. On a different appealed issue, however, we find that NEC never received its promised opportunity to revise its original Contention 2. We therefore remand the case for the limited purpose of giving NEC that opportunity.

I. OVERVIEW

This proceeding stems from an application submitted by Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (collectively, Entergy) for a 20-year renewal of the operating license for the Vermont Yankee Nuclear Power Station (Vermont Yankee).[5] NEC and the Vermont Department of Public Service (Vermont) sought and were granted the right to intervene and challenge the application.[6] The State of New Hampshire and the Commonwealth of Massachusetts participated in this adjudicatory proceeding as "interested states."[7] The Staff also participated as a party.

In today's decision, we first decide that, contrary to NEC's request, the Staff's and NEC's petitions for review need not be stayed. Next, we determine that the Staff's petition for review satisfies the applicable regulatory standards for appellate review. Having resolved those threshold issues, we provide regulatory background information on the issue of metal fatigue, and then describe the procedural history of this case. Finally, we consider the two petitions for review. We agree with the Staff that the Board should not have ruled in NEC's favor in LBP-08-25 as to Contentions 2A and 2B and also that the Board in LBP-09-9 correctly decided not to admit Contention 2C. Based on these conclusions, we reverse the portion of LBP-08-25 that addresses metal fatigue, and we uphold the portion of LBP-09-9 that addresses Contention 2C. We nevertheless remand the proceeding for further consideration of Contention 2.

---

[4] LBP-09-9, 70 NRC 41 (2009).

[5] Entergy License Renewal Application: Vermont Yankee Nuclear Power Station (Jan. 25, 2006) (ADAMS Accession No. ML060300085) (Application), as supplemented.

[6] Vermont adopted NEC's contentions. *See* LBP-06-20, 64 NRC 131, 206-08 (2006); Vermont's Notice of Intent to Adopt Contentions and Motion for Leave to Be Allowed to Do So (June 5, 2006).

[7] *See* 10 C.F.R. § 2.315(c).

A. The Staff's Petition for Review

The Board admitted five contentions, of which the following three are at issue in the Staff's petition:

> Contention 2:
>
> Entergy's License Renewal Application does not include an adequate plan to monitor and manage the effects of aging [due to metal fatigue] on key reactor components that are subject to an aging management review, pursuant to 10 C.F.R. § 54.21(a) and an evaluation of time limited aging analysis under 10 C.F.R. § 54.21(c).[8]
>
> Contention 2A:
>
> [T]he analytical methods employed in Entergy's [[First] environmentally corrected CUF or] CUF_{en}[[9]] Reanalysis were flawed by numerous uncertainties, unjustified assumptions, and insufficient conservatism, and produced unrealistically optimistic results. Entergy has not, by this flawed reanalysis, demonstrated that the reactor components assessed [i.e., the feedwater, core spray, and reactor recirculation outlet nozzles] will not fail due to metal fatigue during the period of extended operation.[10]
>
> Contention 2B:
>
> Entergy's Second CUF_{en} Reanalysis neither validates the results of Entergy's First CUF_{en} Reanalysis, nor independently demonstrates that CUF_{en}s for all components . . . are less than one.[11]

In LBP-08-25, the Board declined to authorize issuance of the renewed license, based on its merits findings with respect to Contentions 2A and 2B:

> Entergy's metal fatigue analyses of the core spray and reactor recirculation outlet

---

[8] LBP-06-20, 64 NRC at 183 (brackets in original).

[9] "CUF" is the abbreviation for "cumulative use factor" (or, alternatively, "cumulative usage factor") — a means of "quantif[ying] the fatigue that a particular metal component experiences during plant operation." *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 663 (2008).

"CUF_{en}" is the abbreviation for "cumulative use [or usage] factor environmentally adjusted." This term refers to a CUF as modified by an F_{en} ("environmental adjustment factor") to reflect the corrosive environment inside a nuclear reactor — a factor that may accelerate "fatigue failure." *See, e.g.,* Regulatory Guide 1.207, Guidelines for Evaluating Fatigue Analyses Incorporating the Life Reduction of Metal Components Due to the Effects of the Light-Water Reactor Environment for New Reactors, at 2 (Mar. 2007) (ADAMS Accession No. ML083300592); NUREG/CR-6909/ANL-06/08, "Final Report: Effect of LWR Coolant Environments on the Fatigue Life of Reactor Materials" (NUREG/CR-6909), at xv, 4, 22, 38, 51, 63, 70, & App. A (Argonne National Laboratory Feb. 2007) (ADAMS Accession No. ML082520022).

For a further explanation of CUF and CUF_{en}, *see* the text associated with notes 63-68, *infra.*

[10] LBP-08-25, 68 NRC at 779-80 (citing LBP-07-15, 66 NRC 261, 267-68 (2007)).

[11] LBP-08-25, 68 NRC at 780.

> nozzles do not comply with relevant requirements and do not provide the reasonable assurance of safety required by 10 C.F.R. §§ 54.21(c)(1) and 54.29 . . . . [T]he license renewal is not authorized and thus cannot be granted until 45 days after Entergy satisfactorily completes these metal fatigue calculations and serves them on the NRC Staff and the other parties herein. Until that time, this proceeding on Contentions 2A and 2B will remain open and Contention 2 will be held in abeyance.[12]

The Staff filed a petition for review of LBP-08-25 pursuant to 10 C.F.R. § 2.341(b)(4). The Staff challenges the Board's rulings on Contentions 2A and 2B, and particularly the Board's interpretation of 10 C.F.R. §§ 54.3, 54.21(c)(1), and 54.29.[13] NEC and Vermont oppose the Staff's petition,[14] while Entergy supports it.[15] In addition, the States of New York and Connecticut, Hudson Riverkeeper, Inc., Hudson River Sloop Clearwater, Inc., and the Prairie Island Indian Community (collectively, New York) seek permission to file a brief *amici curiae* regarding the Staff's petition for review.[16] We grant their request.

---

[12] *Id.* at 780 (emphasis deleted). NEC's Contentions 3 and 4 challenged Entergy's plans to monitor and manage aging of the steam dryer and flow-accelerated corrosion of plant piping, respectively, during the period of extended operation. As to these contentions, the Board ruled that Entergy's aging management programs comply with the relevant requirements and provide the reasonable assurance of safety required by the regulations. *Id.* at 780-81. The Board conditioned its decision with respect to Contention 3 on the requirement that Entergy continue to monitor and inspect the steam dryer during the period of extended operation at specified intervals. No party has challenged the Board's ruling on Contention 3. In addition, the Board rested its findings regarding Contention 4, in part, on certain facts that it "officially noticed" under 10 C.F.R. § 2.337(f) and Rule 201(e) of the Federal Rules of Evidence. The Board noted that a party wishing to challenge those facts could do so either by filing a motion for reconsideration with this Board, or an appeal to the Commission. No party did so. Therefore, the Board's findings with respect to Contentions 3 and 4 are not at issue on appeal.

[13] Staff Petition at 1-2, 8-11, 14-23.

[14] New England Coalition's Response to NRC Staff's Petition for Review of the Licensing Board's Partial Initial Decision, LBP-08-25 (Dec. 19, 2008); Vermont Department of Public Service Opposition to Petition for Review of Partial Initial Decision LBP-08-25 (Dec. 19, 2008) (Vermont Opposition).

[15] Entergy's Answer in Support of NRC Staff's Petition for Review of the Licensing Board's Partial Initial Decision, LBP-08-25 (Dec. 19, 2008) (Entergy Answer to Staff Petition for Review).

[16] *See generally* Nonlitigants' Motion. New York and its co-applicants are parties in other Commission adjudications that presented or present an issue similar to the one we address today. In the past, we have welcomed appellate briefs *amicus curiae* under such circumstances. *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-02-27, 56 NRC 367, 370 n.10 (2002). Both Entergy and the Staff oppose New York's motion and direct our attention to our general policy of permitting the filing of *amicus* briefs *only after* we either accept a petition for review filed pursuant to 10 C.F.R. § 2.341(b) or *sua sponte* approve of the submittal. Entergy's Answer Opposing Motion by New York et al. for Leave to Submit Brief Amici Curiae (Dec. 23, 2008), at 1-2; NRC Staff's Reply to Motion to Submit Brief Amicus [sic] Curiae (Dec. 23, 2008), at 2 (quoting *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-97-7, 45 NRC 437,

(Continued)

B. NEC's Petition for Review

Following the Board's ruling in LBP-08-25, and pending our resolution of the Staff's petition, the proceeding continued. Entergy performed the additional analyses of the core spray and reactor recirculation outlet nozzles, as directed by the Board. In response, NEC submitted a new contention challenging those analyses, which the Board declined to admit. In that contention (which we designate "Contention 2C"), NEC argued that:

> . . . Entergy has not *properly* recalculated the Core Spray and [Reactor] Recirculation Outlet nozzle CUF_{en}s such that they demonstrate that these important components will not fail during the period of extended operation . . . . Such recalculations involve complex scientific and technical judgments.
>
> The complex scientific and technical judgments employed in Entergy's [March 2009] recalculation of environmentally assisted metal fatigue for [Reactor] Recirculation Outlet and Core Spray nozzles . . . are technically and factually flawed and do not conform to ASME [American Society of Mechanical Engineers], NRC, or National Laboratory guidance, nor do they fully conform to established engineering practice, or the rules of applied physics. As such[,] Entergy's reanalysis of these pressure boundary components cannot be relied upon for adequate assurance of public health and safety.[17]

In LBP-09-9, the Board concluded that Contention 2C had "failed to satisfy either the requirements specified in [the] Partial Initial Decision [LBP-08-25[18]] or the new contention pleading requirements of 10 C.F.R. § 2.309(f)(2)(i)-(iii)."[19]

438-39 (1997) (our regulations "contemplate *amicus curiae* briefs only after the Commission grants a petition for review, and do not provide for *amicus* briefs supporting or opposing petitions for review" (emphasis omitted))). This argument is inapposite here because, in today's decision, we both grant the Staff's petition for review and consider the arguments contained in that same petition.

[17] New England Coalition, Inc.'s Motion for Leave to File a Timely New Contention and Motion to Hold in Abeyance Action on This Proposed Contention Until Issuance of NRC Staff Supplemental Safety Evaluation Report (Apr. 24, 2009), at 1-2 (NEC's Motion to File Contention 2C) (emphasis in original).

[18] *See* LBP-09-9, 70 NRC at 43-44 (citations omitted):

> [In LBP-08-25, w]e . . . required that any new or amended contention[s] "must specifically state how the new analyses are not consistent with the legal requirement and the calculations performed for the feedwater nozzle." . . . We cautioned NEC . . . that this was not an opportunity to "rehash or renew technical challenges that have already been raised and resolved in this proceeding."

[19] *Id.* at 48. Section 2.309(f)(2)(i)-(iii) entitles an intervenor to submit a new safety contention, with leave of the Board, upon three showings: the information upon which the new contention is based was previously unavailable; the information is materially different from any previously available information; and the submission of the new contention was timely, in light of the date upon which the new information became available.

NEC filed a petition for review, arguing that the Board in LBP-09-9 had made clear errors of fact, had denied NEC its right to "present [its] case with respect to an accepted contention" (Contention 2), had raised substantial issues of first impression, and had adversely "affect[ed] public confidence" in our agency and its hearing process.[20] As relief, NEC asks us to (i) review LBP-09-9, (ii) order independent experts to examine the Board's findings of fact, (iii) make independent safety and policy determinations after reviewing the independent expert's examination, and (iv) constitute a new licensing board to consider NEC's original Contention 2.[21] The Staff and Entergy oppose NEC's Petition.[22]

II. PRELIMINARY MATTERS

A. NEC's Motion for Stay

On December 19, 2008, NEC moved that we either "reject the Staff's Petition for Review, or in the alternative, . . . stay or withhold decision on the Staff's Petition for Review until it can be addressed in a way that does not result in overlapping, confused, and duplicative litigation; and until NEC has exhausted its allotted time in which to file a petition for review."[23] The Office of the Secretary had previously defined this "allotted time" as within "15 days after the date the Board rules on any NEC motion for reconsideration."[24]

Events have overtaken NEC's motion, rendering it moot. The Board denied NEC's Motion for Reconsideration of LBP-08-25[25] on January 26, 2009,[26] and NEC filed no petition for review of that Order. Moreover, the Board has now issued its final Initial Decision[27] rejecting NEC's most recent variation on its second contention,[28] and NEC has submitted a petition for review of that decision. Consequently, we now hold exclusive jurisdiction over this adjudication, and

---

[20] NEC Petition at 2-3, 13.

[21] *Id.* at 3, 19.

[22] NRC Staff's Answer in Opposition to New England Coalition's Petition for Review of the Licensing Board's Full Initial Decision, LBP-09-09 (Aug. 3, 2009) (Staff Response to NEC Petition for Review); Entergy's Response in Opposition to New England Coalition's Petition for Review of LBP-09-09 (Aug. 3, 2009) (Entergy Response to NEC Petition for Review).

[23] New England Coalition's Response to NRC Staff's Petition for Review of the Licensing Board's Partial Initial Decision, LBP-08-25 (Dec. 19, 2008), at 10, referring to LBP-08-25, 68 NRC at 831-32.

[24] Order (SECY Dec. 11, 2008) (unpublished).

[25] New England Coalition's Motion for Reconsideration of the Licensing Board's Partial Initial Decision (Dec. 17, 2008).

[26] Order (Denying NEC Petition for Reconsideration Under 10 C.F.R. § 2.345(b)) (Jan. 26, 2009) (unpublished).

[27] LBP-09-9, *supra.*

[28] NEC's Motion to File Contention 2C.

there is no possibility that the appellate litigation now before us will overlap or duplicate any hearing-level litigation before the Board.

B. NEC's Request to Suspend Proceeding

NEC recently submitted a letter requesting that the Commission stay its consideration of NEC's July 23, 2009 petition for review of LBP-09-9.[29] NEC filed this request in conjunction with an enforcement petition that it previously had submitted to the NRC pursuant to 10 C.F.R. § 2.206.[30] Without offering any supporting reasons, NEC requests that the Commission stay further review of the petition until:

> (1) The issues raised in the subject 2.206 Petition are resolved.
>
> (2) Entergy Nuclear Vermont Yankee (ENVY) has provided answers to NRC's Demand for Information letter of March[ ]1, 2010.
>
> (3) ENVY'S answers to the Demand for Information are examined and verified by NRC and, in as much as both the 50-271 License Renewal Application proceeding and the 50-271 Extended Power Uprate proceeding fall within the five year period with which the Demand for Information is concerned, the parties to these proceedings.
>
> (4) Should the uncovering of any significant material misrepresentations warrant, the aforementioned dockets are reopened with an opportunity for the affected parties to litigate any issues that may, as a product of resolution of the subject NEC 2.206 and/or the NRC Demand for Information, come forth.[31]

At bottom, NEC seeks not a stay but rather a suspension of this proceeding. As we recently observed, such a request does not fit cleanly into our procedural

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[29] Letter from Raymond Shadis (NEC Consultant) to Annette L. Vietti-Cook (Mar. 2, 2010) (Shadis Letter) (ADAMS Accession No. ML100630425).

[30] Request for Expedited NRC Action Under 10 CFR §§ [ ]2.206 to Address Conditions Trending to a Degradation of Public Safety Margin at Vermont Yankee Nuclear Power Station (Dkt. 50-271) (Feb. 8, 2010) (NEC § 2.206 Petition) (ADAMS Accession No. ML100470430), attached to Shadis Letter. NEC's request for suspension also refers to the NRC Staff's "Demand for Information" to Entergy. *See* Attachment to Letter from Roy P. Zimmerman (Director, NRC Office of Enforcement) to Mr. John Herron (Entergy) (Mar. 1, 2010) (ADAMS Accession No. ML100570237).

[31] Shadis Letter at 2.

rules.[32] However, we will exercise discretion and consider NEC's request to suspend this proceeding.

We have reviewed NEC's enforcement request and see nothing in it that relates to metal fatigue — the sole remaining issue in this adjudication. Rather, the issues raised in the enforcement petition relate to underground piping.[33] The Staff's Demand for Information similarly is a general one, not specifically keyed to license renewal. Just as we did not think it "sensible to postpone consideration and resolution of various . . . issues having little or nothing to do with the Commission's ongoing review of security requirements" following the September 11th attacks,[34] we likewise see no reason to postpone the consideration of the metal fatigue issues until the resolution of other issues unrelated to this adjudication. Moreover, we have, in the past, declined to hold a licensing adjudication in abeyance pending completion of a related NRC enforcement action,[35] and we generally have declined to hold proceedings in abeyance pending the outcome of other Commission actions or adjudications.[36] NEC has offered us no reason to treat its request for suspension any differently.[37]

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[32] *See Shieldalloy Metallurgical Corp.* (Decommissioning of the Newfield, New Jersey Site), CLI-10-8, 71 NRC 142, 147 (2010); 10 C.F.R. §§ 2.342, 2.1213 (governing stays of effectiveness of presiding officer's initial decision and NRC Staff action, respectively). See also *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-8, 33 NRC 461, 471 (1991).

[33] *See generally* NEC § 2.206 Petition.

[34] *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 239 (2002). *See also Duke Cogema Stone & Webster* (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-28, 54 NRC 393, 400 (2001) ("there is no reason to postpone the MOX fuel proceeding — which, after all, will require resolution of many issues having nothing to do with terrorism"), *reconsideration denied,* CLI-02-2, 55 NRC 5 (2002); *Shoreham,* CLI-91-8, 33 NRC at 471 (abeyance request denied on the ground that "there is nothing before the New York Court of Appeals which is central to our decisions").

[35] *Consolidated Edison Co. of New York* (Indian Point, Units 1 and 2), CLI-01-8, 53 NRC 225, 228-29 (2001).

[36] *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-03-4, 57 NRC 273, 275-77 (2003) (rejecting requests for suspension pending completion of our post-September 11th review of measures to protect against terrorist attacks); *Diablo Canyon,* CLI-02-23, 56 NRC at 237-40 (same); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 380-84 (2001) (same); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-27, 54 NRC 385, 389-91 (2001) (same); *Savannah River,* CLI-01-28, 54 NRC at 399-401 (same).

[37] We observe, however, that the proceeding will remain open during the pendency of the remand. During that time, NEC and Vermont are free to submit a motion to reopen the record pursuant to 10 C.F.R. § 2.326, should they seek to address any *genuinely new* issues related to the license renewal application that previously could not have been raised. Once this proceeding has been closed, NEC and Vermont will still have the opportunity to raise issues by using our enforcement and rulemaking procedures under 10 C.F.R. §§ 2.206 and 2.802, respectively. However, the extended power uprate

(Continued)

C. The Regulatory Standards for Review

Section 2.341(b)(1) of our regulations provides for discretionary Commission review of a presiding officer's initial decision.[38] As a partial initial decision, LBP-08-25 falls within the scope of that provision. The Board's "Full Initial Decision," LBP-09-9, does so as well. We will consider a petition for review under section 2.341(b)(4) if it raises a substantial question with respect to one or more of the following:

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
>
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
>
> (iii) A substantial and important question of law, policy, or discretion has been raised;
>
> (iv) The conduct of the proceeding involved a prejudicial procedural error; or
>
> (v) Any other consideration which the Commission may deem to be in the public interest.[39]

On appeal, we review legal issues *de novo*.[40] By contrast, we generally defer to our boards' findings of fact, unless they are clearly erroneous.[41] When we review our boards' rulings on contention admissibility, we employ the "clear error [and] abuse of discretion" standards of review.[42]

1. The Staff's Petition for Review

The Staff seeks review under subsections (i), (ii), (iii), and (v), above. Regarding subsection (i), the Staff asserts that the Board's ruling on Contentions 2A and 2B reflects clearly erroneous factual findings that are implausible in light of

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proceeding to which NEC refers has been terminated and may not be reopened. *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 124 (2009). NEC or Vermont may seek action as to any related issued pursuant to sections 2.206 and 2.802.

[38] 10 C.F.R. § 2.341(b)(1).

[39] 10 C.F.R. § 2.341(b)(4).

[40] *See, e.g., Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23, 29 (2000) ("legal question[s] . . . we review *de novo*").

[41] *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). To satisfy the "clearly erroneous" standard, a litigant must show that the Board's findings are "*not even plausible* in light of the record viewed in its entirety." *Id.* (emphasis added; citation and internal quotation marks omitted).

[42] *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 29 & n.4 (2010).

the record when viewed in its entirety.[43] The Staff directs our attention to what it considers to be two specific instances.

First, the Staff claims that the Board ignored the fact that, according to clear record evidence, Entergy is implementing a Fatigue Monitoring Program, or Aging Management Program (AMP),[44] that is consistent with the Generic Aging Lessons Learned Report (GALL Report).[45] Among other things, the GALL Report sets forth three ways that a license renewal applicant proposing to use an AMP may comply with the requirements of 10 C.F.R. § 54.21(c)(1)(iii).[46] Second, according to the Staff, the Board erroneously stated that *CUF* calculations are at issue when, in fact, both the record generally and the admitted contentions in particular indicate that the contested issue is CUF_{en} calculations.[47]

The Staff also raises three legal questions:

> (i) Whether the Board's interpretation that the Applicant's CUF_{en} analyses fall within the definition of TLAA [time-limited aging analyses][48] in 10 C.F.R. § 54.3, was correct,[49]

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[43] Staff Petition at 11 (citing *Watts Bar,* CLI-04-24, 60 NRC at 189).

[44] Application at B-39. An AMP is a program intended to manage the effects of aging on a particular component by, e.g., ensuring that the fatigue usage factor for the component does not exceed the design code limit. *See* 10 C.F.R. § 54.21(c)(1)(iii); NUREG-1801, "Generic Aging Lessons Learned (GALL) Report," Vol. 2, Rev. 1, Chapter X ("Time-Limited Aging Analyses: Evaluation of Aging Management Programs under 10 CFR 54.21(c)(1)(iii)"), § X.M1 ("Metal Fatigue of Reactor Coolant Pressure Boundary"), at pp. X M-1 to X M-2 (Sept. 2005) (ADAMS Accession No. ML052780376).

[45] Staff Petition at 11 (citing LBP-08-25, 68 NRC at 825-26). *See generally* GALL Report § X.M1, at pp. X M-1 to X M-2 (description of the "Metal Fatigue of Reactor Coolant Pressure Boundary" AMP).

[46] *See* GALL Report § X.M1, at p. X M-2 ("repair of the component, replacement of the component, and a more rigorous analysis of the component to demonstrate that the design code will not be exceeded").

[47] Staff Petition at 11 (citing LBP-08-25, 68 NRC at 830). Regarding the difference between CUFs and CUF_{en}s, *see* note 9, *supra.*

[48] Section 54.3(a) defines TLAAs as "those licensee calculations and analyses that:

> (1) Involve systems, structures, and components within the scope of license renewal, as delineated in § 54.4(a);
>
> (2) Consider the effects of aging;
>
> (3) Involve time-limited assumptions defined by the current operating term, for example, 40 years;
>
> (4) Were determined to be relevant by the licensee in making a safety determination;
>
> (5) Involve conclusions or provide the basis for conclusions related to the capability of the system, structure, and component to perform its intended functions, as delineated in § 54.4(b); and
>
> (6) Are contained or incorporated by reference in the [current licensing basis]."

[49] Staff Petition at 8.

(ii) Whether the Board was correct in ruling that Entergy's AMP, which the Staff asserts is consistent with the . . . GALL Report . . . , fails to satisfy the demonstration requirements of 10 C.F.R. § 54.21(c)(1) and likewise fails to provide reasonable assurance in accordance with § 54.29,[50] and

(iii) Whether the Board was correct in holding that CUF_{en} calculations are a "condition precedent" to issuing a renewed license.[51]

Finally, the Staff argues that Commission review is in the public interest because this decision could affect pending and future license renewal determinations.[52]

We conclude that, because the challenged portions of LBP-08-25 address significant issues of law and policy that lack governing precedent and raise issues that could affect other license renewal determinations,[53] the Staff Petition satisfies subsections (ii), (iii), and (v) of our standards for review.[54] We therefore grant the Staff's petition and consider the merits of its arguments.

2. NEC's Petition for Review

NEC seeks review of LBP-09-9 under 10 C.F.R. § 2.341(b)(4)(i), (iii), (iv), and (v). Under subsection (i), NEC asserts that the Board misunderstood the facts relevant to the fatigue analysis.[55] Under subsection (iii), NEC argues that LBP-09-9 raises substantial questions of policy, practice, and procedure that lack governing precedent.[56] Under subsection (iv), NEC claims both that the Board conducted the hearing in a manner that was biased against NEC and that Contention 2 still requires litigation, preferably by a different panel of judges.[57] And finally, under subsection (v), NEC asserts that appellate review would be

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[50] *Id.* at 8-9, 11. The Staff also asserts that the Board's ruling is a clear departure from Commission precedent. Staff Petition at 11 (citing *AmerGen Energy Co.* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 468 (2008)).

[51] *Id.* at 8, 9, 18.

[52] *Id.* at 11 (citing *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-7, 63 NRC 165, 166 (2006)).

[53] *See id.* at 1-2.

[54] In view of these determinations, we need not consider whether the Staff's petition for review would likewise qualify for appellate review under subsection (i).

[55] NEC Petition at 2, 14-19.

[56] *Id.* at 2.

[57] *Id.* at 2, 3, 12-14.

in the public interest because LBP-09-9 "raises issues that could affect public confidence in the NRC and its hearing process."[58]

We find that NEC's argument regarding Contention 2 satisfies subsection (iv) of our standards for review (prejudicial procedural error). We also exercise our discretion to consider the remainder of NEC's petition for review, which addresses the Board's adverse ruling on the admissibility of Contention 2C.

III. BACKGROUND

The Staff challenges the Board's merits rulings on Contentions 2A and 2B, and NEC challenges both the Board's refusal to admit Contention 2C for litigation and its failure to resurrect Contention 2 for litigation. An understanding of the Staff's and NEC's assertions requires familiarity with the complex technical, procedural, and factual background of this proceeding, which we provide below.

A. Technical Background Regarding Metal Fatigue

Metal fatigue can be defined as the weakening of a metal due to mechanical and thermal stresses, which are variously referred to as load cycles, stress cycles, and cyclical loading.[59] Metal components experience these stresses during "transients" such as significant temperature changes during plant startup and shutdown. An excessive number of load cycles or transients may result in a fracture or a significant reduction in the strength of a component. These fractures or significant reductions are called "fatigue failure." For any material, there is a characteristic number of stress cycles that it "can withstand at a particular applied stress level before fatigue failure occurs."[60] The period during which this number of load cycles occurs for *all* types of stress is called the material's "fatigue life."[61]

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[58] *Id.* at 2-3. *See also id.* at 13 (the Board's "findings . . . are so often at odds with basic science and established engineering practice" that they "are detrimental to the [Board's] and the NRC's scientific and technical reputation of competence" (footnote omitted)).

[59] A "stress cycle" is the time period it takes for a material to go from its minimal stress level to its maximum level and back again to its minimum level. *See* American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (ASME Code), Section III, Division 1, Subsection NB, Subarticle NB-3213.16.

[60] *Oyster Creek,* CLI-08-28, 68 NRC at 663. We did not mean to suggest in *Oyster Creek* that a component will physically "fail" once it has experienced its characteristic number of load cycles. Rather, as the Board correctly observed, the phrase "fatigue failure" refers to the point in a component's life where there is a 1%-5% chance of initiating a crack that is 3 millimeters deep. LBP-08-25, 68 NRC at 802. *See also* Transcript [of Evidentiary Hearing] (Tr.) 898-903 (testimony of NRC Staff witness Mr. John Fair) (July 22, 2008).

[61] *See* NUREG/CR-6909 at 7.

Determining the stress acting on the component during a transient is a complicated inquiry, requiring detailed knowledge of material properties, component design, and the temperature profile of the transient, among other parameters. A detailed stress analysis uses the methodology from the ASME Code to consider six different stress inputs.[62]

The ASME Code contains fatigue design curves for various materials, such as low-alloy steel and stainless steel used in nuclear power plants. These curves indicate the allowed number of stress cycles at any applied stress.[63] In addition, ASME took actual laboratory fatigue data, derived from tests performed at room temperature in the air, and then adjusted the laboratory data by reducing the stress — where stress is expressed as the number of cycles — to account for the difference in a material's behavior in a controlled laboratory environment as compared with a real-world *non*nuclear industrial setting where the component could be used.[64] From these adjusted data, an applicant can calculate the CUF for a component at a particular location on that same component, i.e., the applicant can quantify "the fatigue that a particular [location on a] metal component experiences during . . . operation"[65] of a *non*nuclear industrial facility.[66]

But the correction factors applied by ASME were not intended to account for the potentially corrosive environment present in a light water reactor — an environment that may accelerate fatigue failure.[67] The effects of the reactor

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[62] *See* ASME Code, Section III, Division 1, Subsection NB, Subarticle NB-3200. Because of the complexity of such an analysis, and its associated costs, some license renewal applicants (including Entergy) have sought to take a simplified approach whereby they use only one stress as the stress input, and then apply the "Green's function" methodology to estimate the stress response of a component. The NRC Staff has recognized potential problems in performing fatigue analyses using the Green's function with a simplified stress input — specifically, that the license renewal applicant may underestimate the stress acting on the component, and in turn, underestimate the fatigue usage. *See* NUREG-1907, "Safety Evaluation Report Related to the License Renewal of Vermont Yankee Nuclear Power Station," Vol. 2, section 4.3.3.2, at p. 4-40 (May 2008) (ADAMS Accession No. ML081430109) (SER); NRC Regulatory Issue Summary 2008-30, "Fatigue Analysis of Nuclear Power Plant Components" (Dec. 16, 2008), at 2 (ADAMS Accession No. ML083450727) (requesting a confirmatory fatigue analysis using the ASME Code methodology with all six stress inputs).

[63] *See* ASME Code, Section III, Division 1, Mandatory Appendix I, Figures I-9.1 to I-9.6.

[64] *See* NUREG/CR-6909 at xv, 1-5. *See also* "Resolution of GSI [Generic Safety Issue]-190, 'Fatigue Evaluation of Metal Components for 60-year Plant Life,'" appended as Attachment 1 to Memorandum from Ashok C. Thadani to William D. Travers, Closeout of Generic Safety Issue 190, "Fatigue Evaluation of Metal Components for 60-year Plant Life" (Dec. 26, 1999) (GSI-190 Closeout Memorandum) (ADAMS Accession No. ML003673136).

[65] NUREG/CR-6909 at 1. *See also id.* at A3.

[66] *Id.* at 3.

[67] *Id.*

environment can be significant under certain circumstances.[68] To take the reactor environment into account, a license renewal applicant may apply a concept called the "environmental fatigue correction factor," or F_{en}, which yields the environmentally adjusted CUF, i.e., the CUF_{en}[69] upon which Contentions 2A and 2B focus.

B. NRC Standards Regarding Metal Fatigue

The scope of a license renewal proceeding under Part 54 of our regulations "encompasses a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses."[70] The "aging management review" is the process that the Staff and license renewal applicants use in determining whether a reactor's structures, systems, and components will require additional activities in order effectively to manage aging in the period of extended operation, and if so, what those activities would be. This review addresses both aging management activities identified in section 54.21(a)(3) regarding the integrated plant assessment and the aging management activities identified in section 54.21(c)(1) regarding the evaluation of TLAAs.

The issue of metal fatigue of the feedwater, core spray, and reactor recirculation outlet nozzles falls within the scope of an aging management review.[71] When examining this issue, both the agency and the applicant focus on the adequacy of the relevant AMP and/or TLAAs.[72] And this adequacy turns upon whether the AMP and TLAAs, as applicable, satisfy the requirements of the following six regulations.

In the license renewal context, sections 54.33 and 54.35 of our regulations require that a licensee comply with our Part 50 regulations, including the provisions requiring compliance with the ASME Code, during the period of extended opera-

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[68] For instance, "[l]aboratory data indicate that under certain reactor operating conditions, fatigue lives of carbon and low-alloy steels can be a factor of 17 lower in the [reactor] coolant environment than in air." *Id.*

[69] *Id.* at 4.

[70] *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 212 (2001).

[71] It is undisputed that these three components fall within the scope of the license renewal review. *See* Application at pp. 2.3-27 & 3.1-43 (as part of the reactor vessel and the pressure boundary, core spray nozzles are subject to aging management review), 3.1-2, -19 & -42 (as part of the reactor coolant system and the reactor vessel, the reactor feedwater nozzle is subject to aging management review), 3.1-41 (listing the reactor recirculation outlet nozzle as part of the reactor vessel).

[72] 10 C.F.R. § 54.29(a) (requiring a "reasonable assurance" finding with regard to "(1) managing the effects of aging . . . and (2) time-limited aging analyses").

tion.[73] In particular, section 50.55a(c)(1) requires that the feedwater, core spray, and the reactor recirculation outlet nozzles, as part of the reactor coolant pressure boundary, meet the metal-fatigue requirements for Class 1 components in Section III of the ASME Code.[74] The ASME Code in turn provides the methodology for calculating the CUFs for nuclear power plant components, and specifies a design limit of 1.0 for the CUF of any given component, including any additional stress cycles that may occur during the period of extended operation.[75]

Other regulations specifically address aging management. Section 54.29(a)(1)-(2) provides in general terms that:

> A renewed license may be issued by the Commission up to the full term authorized by § 54.31 if the Commission finds that:
>
> (a) Actions have been identified and have been or will be taken with respect to the matters identified in paragraphs (a)(1) and (a)(2) of this section, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the [current licensing basis], and that any changes made to the plant's [current licensing basis] in order to comply with this paragraph are in accord with the [Atomic Energy Act] and the Commission's regulations. These matters are:
>
> (1) *managing the effects of aging* during the period of extended operation on the functionality of structures and components that have been identified to require review under § 54.21(a)(1); and
>
> (2) *time-limited aging analyses* that have been identified to require review under § 54.21(c).[76]

Section 54.21(a) requires, among other things, that each application contain an integrated plant assessment which must:

> (1) For those systems, structures, and components within the scope of this part, as delineated in § 54.4, identify and list those structures and components subject to an *aging management review*.
>
> . . . .
>
> (3) For each structure and component identified in paragraph (a)(1) of this section, demonstrate that the *effects of aging will be adequately managed* so that the

[73] 10 C.F.R. §§ 54.33, 54.35.

[74] 10 C.F.R. § 50.55a(c)(1).

[75] ASME Code, Section III, Division 1, Subsection NB, Subarticle NB-3222.4. *See also* NUREG/CR-6909 at 1; NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," Rev. 1 (Sept. 2005) (SRP), § 4.3.1.1, at p. 4.3-1 (ADAMS Accession No. ML052770566).

[76] 10 C.F.R. § 54.29(a)(1)-(2) (emphases added).

intended function(s) will be maintained consistent with the [current licensing basis] for the period of extended operation.[77]

Section 54.21(c)(1) focuses specifically on TLAAs and requires that a license renewal application include an evaluation of TLAAs demonstrating at least one of the following:

> (i) The *analyses* remain valid for the period of extended operation;
> (ii) The *analyses* have been projected to the end of the period of extended period of operation; or
> (iii) The *effects of aging on the intended function(s) will be adequately managed* for the period of extended operation.[78]

Subsection (iii) of this regulation differs from both subsections (i) and (ii) in that it does not require a demonstration that an *existing* TLAA either is good for the 20-year period of extended operation or has been projected to the end of that period. Rather, subsection (iii) tracks the language of section 54.21(a)(3), and its "adequate management" requirement is generally accomplished by establishing a prospective AMP (or similar plan). In short, a license renewal applicant seeking to satisfy our regulations' aging management requirements by reliance upon the *existing TLAAs* in its current licensing basis would rely upon sections 54.21(c)(1)(i) or (ii), while a license renewal applicant seeking to do so by reliance upon an *AMP* would rely instead upon sections 54.21(a)(3) and (c)(1)(iii).[79]

In addition to the regulatory requirements set forth above, the agency has issued guidance documents that assist both the Staff in reviewing license renewal documents and applicants in complying with sections 54.21(a)(3) and (c)(1). One of these is the SRP.[80] Regarding the use of the CUF in particular, the SRP provides that an applicant who chooses to rely upon an existing TLAA pursuant to 10 C.F.R. § 54.21(c)(1)(i) may demonstrate compliance with the rule by showing that "[t]he existing *CUF* calculations remain valid because the number of assumed transients would not be exceeded during the period of extended operation."[81] In

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[77] 10 C.F.R. § 54.21(a)(1), (3) (emphases added).

[78] 10 C.F.R. § 54.21(c)(1)(i)-(iii) (emphases added).

[79] Some license renewal applicants have sought to satisfy more than one of the three subsections. *See* text immediately following note 98, *infra*; *Oyster Creek,* CLI-08-28, 68 NRC at 664 n.24.

[80] *See* note 75, *supra.*

[81] SRP § 4.3.2.1.1.1, at p. 4.3-4 (emphasis added).

other words, the applicant should demonstrate that its *existing analyses* are *valid* for 60 years.[82]

The SRP also provides that an applicant who chooses to employ the TLAA option under 10 C.F.R. § 54.21(c)(1)(ii) may demonstrate compliance with the rule by showing that "[t]he CUF calculations have been reevaluated based on an increased number of assumed transients to bound the period of extended operation [and that t]he resulting CUF remains less than or equal to [1.0] for the period of extended operation."[83] In other words, the applicant should demonstrate that its *existing analyses* have been *projected* to 60 years, such that no further analysis or management is necessary.

Alternatively, or in addition to other analyses,[84] a license renewal applicant may address the CUF issue via an aging management program. The SRP permits an applicant who chooses to implement an AMP under 10 C.F.R. § 54.21(c)(1)(iii) to reference Chapter X of the GALL Report:

> [NRC] staff has evaluated a program for monitoring and tracking the number of critical thermal and pressure transients for the selected reactor coolant system components. The staff has determined that this program is an acceptable aging management program to address metal fatigue of the reactor coolant system components according to 10 CFR 54.21(c)(1)(iii). The GALL [R]eport may be referenced in a license renewal application and should be treated in the same manner as an approved topical report. In referencing the GALL [R]eport, the applicant should indicate that the material referenced is applicable to the specific plant involved and should provide the information necessary to adopt the finding of program acceptability as described and evaluated in the report.[85]

Stated differently, "if an applicant cannot or chooses not to justify or extend an existing [TLAA]" by demonstrating compliance with subsection (i) or (ii), then it must demonstrate under subsection (iii) that it can adequately manage the effects

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[82] For instance, if the applicant can demonstrate by plant operating experience that the initially predicted number of stress cycles would not be exceeded even in the extended 20-year operating period, then section 54.21(c)(1)(i) would be satisfied.

[83] SRP § 4.3.2.1.1.2, at p. 4.3-4.

[84] *See* note 79, *supra.*

[85] SRP § 4.3.2.1.1.3, at p. 4.3-4. *See also Oyster Creek,* CLI-08-23, 68 NRC at 468 ("the license renewal applicant's use of an aging management program identified in the GALL Report constitutes reasonable assurance that it will manage the targeted aging effect during the renewal period").

of aging for the period of extended operation.[86] One way to do this is to reference the Metal Fatigue AMP that is approved in the GALL Report.[87]

Finally, the SRP presents one acceptable methodology for calculating the CUF_{en}.[88] Prior to publication of the latest SRP revision in 2005, the Staff already had determined on a general level that licensees should "address the effects of the [light water reactor's] coolant environment on component fatigue life as aging management programs are formulated in support of license renewal."[89] But this determination did not specifically address the use of the environmental adjustment factor (F_{en}).[90] Later, the SRP did so, stating that "[t]here is a concern that *the effects of the reactor coolant environment on the fatigue life of components* were not adequately addressed by the code of record," i.e., ASME Code, Section III.[91] The SRP went on to state that "the adequacy of the code of record relating to metal fatigue is a potential safety issue to be addressed by the current regulatory process for operating reactors,"[92] and that "licensees are to address the effects of coolant environment on component fatigue life as aging management programs are formulated in support of license renewal."[93] The SRP provides guidance but does not impose requirements upon license renewal applicants; the same is true for the GSI-190 Closeout Memorandum.[94]

C. Procedural Background Regarding the Metal Fatigue Contentions

The procedural history of Contentions 2, 2A, 2B, and 2C is lengthy and muddled — due, in large part, to Entergy's multiple revisions to the relevant portions of its license renewal application as it responded to multiple Staff inquiries and, in a related vein, Entergy's apparent lack of precision as to the

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[86] Final Rule: "Nuclear Power Plant License Renewal: Revisions," 60 Fed. Reg. 22,461, 22,480 (May 8, 1995).

[87] GALL Report § X.M1, at pp. X M-1 to X M-2 (description of the "Metal Fatigue of Reactor Coolant Pressure Boundary" AMP).

[88] *Oyster Creek,* CLI-08-28, 68 NRC at 665.

[89] GSI-190 Closeout Memorandum at 1.

[90] *Id.,* Att. 1, NRC Staff Paper, "Resolution of GSI-190, 'Fatigue Evaluation of Metal Components for 60-year Plant Life'" at 4, 5. *See also id.,* Att. 2, Letter from Dana A. Powers, Chairman, Advisory Committee on Reactor Safeguards, to Dr. William D. Travers, NRC Executive Director for Operations (Dec. 10, 1999), at 1, 2. Although the GSI-190 Closeout Memorandum itself does not specifically address the F_{en} factor, its Appendix C cites three topical reports by the Electric Power Research Institute that do refer to the factor.

[91] SRP § 4.3.1.2, at p. 4.3 2 (emphasis added).

[92] *Id.*

[93] SRP § 4.3.1.2, at p. 4.3 3.

[94] *See U.S. Enrichment Corp.* (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 280 n.37 (2001).

specific subsection of section 54.21(c)(1) with which it sought to comply for the components at issue.

In its initial application, Entergy calculated both the CUFs and CUF_{en}s for metal fatigue at nine locations on six components, including the core spray, feedwater, and reactor recirculation outlet nozzles.[95] None of the nine locations had a CUF in excess of 1.0,[96] although the CUF_{en}s at seven locations exceeded that number.[97] Regarding metal fatigue at these seven locations, Entergy acknowledged its obligation to make at least one of the three demonstrations specified in section 54.21(c)(1)(i), (ii) and (iii).[98] But in its initial application, it did not identify which of these demonstrations it intended to make. It stated only that "[p]rior to entering the period of extended operation, for each location that may exceed a CUF of 1.0 when considering environmental effects, [Entergy] will implement one or more of the following options:

> (1) *further refinement* of the fatigue analyses to lower the predicted CUFs to less than 1.0;[[99]]
>
> (2) *management of fatigue* at the affected locations by an inspection program that has been reviewed and approved by the NRC (e.g., periodic non-destructive examination of the affected locations at inspection intervals to be determined by a method acceptable to the NRC);
>
> (3) *repair or replacement* of the affected locations."[100]

All three of these options are specifically identified in the GALL Report as actions that satisfy two elements of the GALL Report's "Metal Fatigue of Reactor

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[95] *See* Application § 4.3.3, at p. 4.3-6.

[96] *See id.* § 4.3.1, at p. 4.3-3 (Table 4.3-1).

[97] *Id.* § 4.3.3, at pp. 4.3-6 & 4.3-8 (Table 4.3-3); SER § 4.3.3.1, at p. 4-32.

[98] *See* Application § 4.3, at p. 4.3-1.

[99] NRC Staff's expert witness Dr. Kenneth C. Chang described Entergy's use of this "refinement" as follows:

> When a calculated CUF_{en} for a component is greater than the allowable value of 1.0, it is possible to reduce the predicted value of CUF_{en}. This is done by analyzing the actual transients cycles experienced by the plant to obtain CUF_{en} instead of using original design cycles. In general, actual plant transients are less severe than the design transients, which are defined on a generic basis for all similar plants for the design of the component, and therefore, typically result in a CUF value that is lower than that of the original design calculation. In addition, transients may occur less frequently than specified by the original design, which may lead to a lower CUF value for the component. The ASME Code allows performance of a more detailed analysis as a way to demonstrate code compliance.

Affidavit of Kenneth C. Chang Concerning NEC Contentions 2A and 2B (Metal Fatigue) (May 12, 2008) (Chang Affidavit), at 5-6 (ADAMS Accession No. ML081350168).

[100] Application § 4.3.3, at p. 4.3-7 (emphases added). See also SER § 4.3.3.2, at p. 4-34.

Coolant Pressure Boundary" AMP.[101] Moreover, the GALL Report states that no further evaluation is recommended for license renewal if the applicant selects that AMP under 10 C.F.R. § 54.21(c)(1)(iii). It therefore appears that Entergy, when it submitted its application, intended all three of these options to fall under subsection (iii), as part of an AMP — though not one that satisfied all criteria of the GALL Report. In this last respect, Entergy acknowledged that the proposed Fatigue Monitoring Program in its license renewal application[102] differed from the "Metal Fatigue of Reactor Coolant Pressure Boundary" AMP described in the GALL Report because Entergy's AMP excluded consideration of the effects of reactor environment on the fatigue usage.[103]

On May 26, 2006, NEC submitted its petition to intervene. The petition contained Contention 2, which challenged Entergy's failure to include a proposed AMP[104] in its license renewal application pursuant to 10 C.F.R. § 54.21(c)(1)(iii). According to NEC, the description of Entergy's proposed aging management plan in section 4.3.3 of the Application was so "vague, incomplete and lacking in transparency" that it constituted merely a "plan to create a plan," and therefore failed to qualify as an AMP under 10 C.F.R. § 54.21(c)(1)(iii).[105] The Board admitted this contention on September 22, 2006.[106]

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[101] GALL Report § X.M1, at pp. X M-1 to X M-2. The GALL Report contains ten elements that an applicant must satisfy in order to "reference" (rely upon) the generic AMP. *See id.;* SRP § 4.3.2.1.1.3, at p. 4.3-4. The first element relevant to our discussion is "Corrective Actions," which refers to "repair of the component, replacement of the component, and a more rigorous analysis of the component to demonstrate that the design code will not be exceeded." *See* GALL Report § X.M1, at p. X M-2. A second relevant element is "Parameters Monitored/Inspected." This element provides that the AMP should

> monitor[ ] all plant transients that cause cyclic strains, which are significant contributors to the fatigue usage factor. The number of plant transients that cause significant fatigue usage for each critical reactor coolant pressure boundary component is to be monitored. Altematively, more detailed local monitoring of the plant transient may be used to compute the actual fatigue usage for each transient.

Id. at p. X M-1.

[102] Application, App. B (Aging Management Programs and Activities), at p. B-39.

[103] *See* Application § 4.3.1, at p. 4.3-2 ("the documents reviewed are current design basis fatigue evaluations that do not consider the effects of reactor water environment on fatigue life"), App. B, Table B-3, at p. B-12 (indicating that the Fatigue Monitoring Program contained "Exceptions to NUREG-1801," i.e., the GALL Report), & B-39 (same). The Fatigue Monitoring Program also was inconsistent with the GALL Report in a second respect: it did not provide for periodic update of the fatigue usage calculations. *Id.* at B-39.

[104] Petition for Leave to Intervene, Request for Hearing, and Contentions (May 26, 2006), at 14 ("Entergy's License Renewal Application Does Not Include A Plan to Manage Aging Due to Metal Fatigue During the Period of Extended Operation") (NEC Petition to Intervene). *See also* LBP-08-25, 68 NRC at 789-90. Contention 2 is quoted in the text associated with note 8, *supra.*

[105] NEC Petition to Intervene at 16.

[106] LBP-06-20, 64 NRC at 186-87.

In August 2007, Entergy served a new set of metal fatigue calculations and analyses on the parties,[107] and, the following month, submitted a conforming Amendment 31 to its license renewal application.[108] Entergy styled these as its "refined fatigue analyses." In Amendment 31, Entergy specified its reliance upon 10 C.F.R. § 54.21(c)(1)(iii). In performing these new stress analyses to determine CUFs, Entergy used plant-specific data,[109] followed the methodology of ASME Code Section III, NB-3200, and used the Green's function methodology for determining the stress intensities on the respective components during thermal transients. Entergy then factored in the effects of environmentally-assisted fatigue (F_{en}).[110] Based upon those calculations, Entergy concluded that all CUF_{en}s were less than 1.0.[111] In addition, Amendment 31 removed from the original application's Fatigue Monitoring Program the two exceptions that had precluded the consideration of how the reactor environment affected fatigue usage.[112] Entergy therefore asserted that its Fatigue Monitoring Program was now fully consistent with the corresponding "Metal Fatigue of Reactor Coolant Pressure Boundary" AMP in the GALL Report, thus demonstrating compliance with subsection (iii).[113]

Responding to Entergy's August 2007 calculations, NEC filed Contention 2A.[114] This new contention differed from Contention 2 in that it constituted a challenge to the validity of Entergy's CUF and CUF_{en} recalculations[115] rather than an assertion that Entergy's Fatigue Monitoring Program was too vague to qualify as an AMP. Shortly thereafter, the Board admitted Contention 2A and held Contention 2 in abeyance, in case Entergy were to lose on Contention 2A

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[107] *See* Letter from Elina Teplinsky to Sarah Hofmann (Aug. 2, 2007) (cover letter stating that each party and the State of New Hampshire were provided a compact disk with the proprietary calculation package) (ADAMS Accession No. ML072210355). *See also* LBP-07-15, 66 NRC at 265.

[108] Letter from Ted A. Sullivan to NRC (Sept. 17, 2007), Att. 1 (Amendment 31 to Application), at unnumbered p. 1 (ADAMS Accession No. ML072670135) (Amendment 31).

[109] *See* Chang Affidavit at 11. Entergy in its application had based its calculations upon data from a plant of the same vintage as Vermont Yankee but had not used design and transient information specific to Vermont Yankee. *See id.*

[110] Calculation of CUF and F_{en} are two separate mathematical processes. *Compare* NUREG/CR-6909 at 1 (CUF) *with id.* at 4 & Appendix A, "Incorporating Environmental Effects into Fatigue Evaluations" (F_{en}).

[111] Amendment 31 at unnumbered p. 1.

[112] *See* SER § 3.0.3.2.10, at p. 3-73; note 103 and accompanying text, *supra.*

[113] Amendment 31 at unnumbered pp. 1-2.

[114] New England Coalition, Inc.'s (NEC) Motion to File a Timely New or Amended Contention (Sept. 4, 2007), at 3. Contention 2A is quoted in the text associated with note 10, *supra.* NEC appears also to have been under the misimpression that CUF_{en}s were a kind of TLAA — a misconception we address *infra.*

[115] *See* LBP-08-25, 68 NRC at 787, 789-90; LBP-07-15, 66 NRC at 271.

and then decide to rely on or modify its original Fatigue Monitoring Program.[116] The Board, however, treated the calculations in Amendment 31 as an effort to demonstrate compliance with 10 C.F.R. § 54.21(c)(1)(i) or (ii), rather than, as Entergy had stated, an effort to demonstrate the adequacy of its metal fatigue management program under 10 C.F.R. § 54.21(c)(1)(iii).[117]

Thereafter, responding to a Request for Additional Information from the Staff,[118] Entergy submitted Amendment 33 to the license renewal application, containing a further-refined version (styled a "reanalysis") of its September 2007 CUF calculations and still using the Green's function methodology.[119] The Staff, after reviewing those calculations, determined that CUF calculations using the Green's function methodology might underestimate the actual stress on the feedwater, core spray, and reactor recirculation outlet nozzles.[120] Therefore, at a follow-up meeting with Entergy,[121] the Staff asked Entergy to calculate the CUF — excluding the environmental adjustment factor — for the feedwater nozzle, using the methodology from ASME Code Section III, NB-3200, including all six stress components (i.e., without using the Green's function methodology). Entergy would then calculate the CUF_{en} and compare the result to the CUF_{en} presented in Amendment 33 to determine whether the latter was conservative.[122]

In response, Entergy submitted Amendment 34,[123] containing what it styled as its "confirmatory fatigue analysis."[124] In Amendment 34, Entergy recalculated the CUF in accordance with the Staff's request, and also recomputed the CUF_{en}.[125] However, with the Staff's approval,[126] Entergy evaluated only one of the three components — the feedwater nozzle.[127] Entergy stated that it had selected this

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[116] LBP-07-15, 66 NRC at 271.

[117] *Id. See also* notes 100-101, *supra.*

[118] Letter from Pao-Tsin Kuo (NRC) to Michael A. Balduzzi (Entergy), "Update on Extension of Schedule for the Conduct of Review of the Vermont Yankee Nuclear Power Station License Renewal Application" (Nov. 27, 2007) (ADAMS Accession No. ML073130536). *See also* Chang Affidavit at 3-4.

[119] Letter from Ted A. Sullivan to NRC (Dec. 11, 2007), Att. 1 (Amendment 33 to Application: RAI 4.3.3-2 Additional Information), at 2 (ADAMS Accession No. ML073650228) (Amendment 33).

[120] *See* Chang Affidavit at 4.

[121] *See* Letter from Ted A. Sullivan to NRC (Jan. 30, 2008) at 1 (ADAMS Accession No. ML080370478).

[122] SER § 4.3.3.2, at p. 4-40; LBP-08-25, 68 NRC at 791, 818; Chang Affidavit at 4, 17.

[123] Letter from Ted A. Sullivan to NRC (Jan. 30, 2008), Att. 1 & 2 (Amendment 34 to Application) (ADAMS Accession No. ML080370478) (Amendment 34). *See also* SER § 4.3.3.2, at p. 4-40.

[124] Amendment 34. *See also* LBP-08-25 at 791; Chang Affidavit at 4, 16 (referring to the "confirmative analysis").

[125] LBP-08-25 at 819. *See generally* Amendment 34; Chang Affidavit at 14.

[126] LBP-08-25, 68 NRC at 803; Chang Affidavit at 17-19.

[127] Amendment 34 at unnumbered pp 1-2; SER at p. 4-40; Chang Affidavit at 18.

particular component because it had the most severe and the largest number of transients and the feedwater nozzle's analysis would therefore be bounding for all other components.[128] The "confirmatory analysis" yielded lower CUF_{en}s for the feedwater nozzle than had been calculated in the earlier analysis associated with Amendment 33.[129] On the basis of those confirmatory calculations, Entergy concluded that the methodologies used in the earlier analyses for all three components were conservative and therefore acceptable.

The Staff in its review recognized that Entergy's approach to establishing the values of the F_{en} terms in the Amendment 34 "confirmatory" analysis differed from its approach in the "reanalysis" performed in connection with Amendment 33. This change in approach effectively reduced the overall F_{en} value for the "confirmatory analysis" of the feedwater nozzle. The Staff concluded that using transient-specific F_{en}s, while not technically inappropriate, nevertheless obscured the effect of changing the stress calculation methodology on the CUF_{en} calculation.[130] The Staff also concluded that, given the assumptions underlying the data in Amendment 34, the Staff could not judge whether the reduction in F_{en} would also apply to the core spray and reactor recirculation outlet nozzles.[131]

Therefore the Staff, during a follow-up audit in February 2008, requested that Entergy calculate the CUF_{en} for the feedwater nozzle corner by multiplying the conservative F_{en} used in the Amendment 33 fatigue "reanalysis" by the CUF from the Amendment 34 "confirmatory analysis."[132] This combined approach yielded a CUF_{en} higher than Entergy had reported in the Amendment 34 "confirmatory analysis," yet still with a value of less than 1.0.[133]

Based on this last fact, the Staff concluded in its SER that, with respect to the feedwater nozzle, Entergy had satisfied the requirements of 10 C.F.R. § 54.21(c)(1)(iii) by virtue of its "confirmatory analysis" — an analysis which the Staff and Entergy agreed would be considered the analysis of record for

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[128] Amendment 34 at unnumbered pp. 1-2.

[129] *See* Amendment 34, Table 1. The differences between the calculations submitted in Amendments 33 and 34 are summarized in the "Testimony of [Entergy witnesses] James C. Fitzpatrick and Gary L. Stevens on NEC Contention 2A/2B — Environmentally Assisted Fatigue" (May 12, 2008), at 20 (A39(3)), appended as Att. 1, Ex. E2-01 to Entergy's Initial Statement of Position on New England Coalition Contentions (May 13, 2008).

[130] *See, e.g.,* NRC Staff's Proposed Findings of Fact and Conclusions of Law, and Order in the Form of an Initial Decision (Aug. 25, 2008), at 33 (Staff's Proposed Findings of Fact).

[131] *Id.*

[132] *Id.*; SER § 4.3.3.2, at p. 4-42.

[133] SER § 4.3.3.2, at pp. 4-42 to 4-43; Testimony of James C. Fitzpatrick and Gary L. Stevens on NEC Contention 2A/2B — Environmentally Assisted Fatigue (May 12, 2008), at 20-22 (A40-A41), appended as Att. 1, Ex. E2-01 to Entergy's Initial Statement of Position on New England Coalition Contentions (May 13, 2008).

the feedwater nozzle.[134] But as for the two other components (the core spray and reactor recirculation outlet nozzles), the Staff determined that use of the Green's function for the simplified stress input could underestimate the CUF and that the calculations using the Green's function (performed in connection with Amendment 33) therefore could not stand as the analyses of record for those components.[135] Therefore, the Staff required Entergy to perform similar "confirmatory analyses" for those two components,[136] but the Staff postponed the deadline for Entergy to complete these analyses until 2 years prior to the start of the period of extended operation.[137] The Staff's approval of the postponement stems from its position, first stated in the record in August 2007, that because Entergy's proposal constitutes an AMP under section 54.21(c)(1)(iii), the CUF_{en} calculations need not be completed and approved prior to the issuance of a renewed license.[138]

NEC filed a new contention on March 17, 2008, arguing that the January 2008 calculations and analysis were insufficient because Entergy had addressed only

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[134] SER § 4.3.3.2, at pp. 4-42 to 4-43, § 4.3.3.4, at p. 4-43. *See also* Tr. at 753 (Mr. Lloyd B. Subin for the Staff) (July 21, 2008); Chang Affidavit at 16. The Staff, in its SER, accepted Entergy's January 30, 2008 CUF_{en} calculations as the final analysis of record for the feedwater nozzle. *See* SER § 4.3.3.2, at p. 4-43 ("In the letter dated February 21, 2008, the applicant stated that it considers the updated [environmentally assisted fatigue] analysis, submitted in the January 30, 2008 letter, as the analysis-of-record for the [feedwater] nozzle"); *id.* ("the updated analysis, whether using the maximum F_{en} or appropriate F_{en}, yields CUFs lower than the Code allowable [sic]. The staff concludes that this updated analysis is the analysis-of-record for the [feedwater] nozzle.").

[135] SER § 4.3.3.2, at pp. 4-42 to 4-43.

[136] SER § 4.3.3.2, at p. 4-43; Chang Affidavit at 18; LBP-08-25 at 792; Entergy Answer to Staff Petition for Review at 5-6.

[137] SER § 4.3.3.2, at p. 4-43; LBP-08-25 at 792; Entergy Answer to Staff Petition for Review at 6. The "2 years prior" provision first appeared in Commitment 27, which Entergy added to its "License Renewal Commitment List" on August 22, 2006, in Amendment 11. *See* Letter from Ted A. Sullivan to NRC (Aug. 22, 2006), Attachment 1, "Vermont Yankee Nuclear Power Station, License Renewal Application - Amendment 11, License Renewal Commitment List, Revision 1" at 5 (ADAMS Accession No. ML062400342). The Staff later included this in License Condition 4. *See* LBP-08-25, 68 NRC at 792.

[138] *See* LBP-08-25, 68 NRC at 791-92, 825. Previously, the Staff had taken the position that such calculations, when performed as part of a TLAA, must be completed prior to the issuance of a renewed license. *See id.* at 792, 825 (quoting NEC Ex. NEC-JH-62 at enclosure 2, NRC Summary of Telephone Conference Call Held August 20, 2007, Between the U.S. Nuclear Regulatory Commission and Entergy Nuclear Operations, Inc., Concerning the Vermont Yankee Nuclear Power Station License Renewal Application (Oct. 25, 2007) (ADAMS Accession No. ML082340112)). *See also* Order (Regarding the Briefing of Certain Legal Issues) (June 27, 2008), at 2 (unpublished) (commenting on the Staff change of position) (citing NRC Staff Initial Statement of Position on NEC Contentions 2A, 2B, 3, and 4 (May 13, 2008), at 11-12).

one of the asserted deficiencies in the Amendment 33 analyses[139] and likewise had addressed only one of the three kinds of nozzles — the feedwater nozzle.[140] The Board admitted this new contention and designated it Contention 2B.[141] According to the Board, a finding that the January 2008 TLAAs associated with Amendment 34 were adequate would result in the rejection of Contentions 2A and 2B on their merits and the dismissal of Contention 2 as moot.[142]

The Board held an evidentiary hearing concerning Contentions 2A and 2B on July 21-24, 2008,[143] in which it expressly interpreted the two contentions as focusing on 10 C.F.R. § 54.21(c)(1)(ii) rather than 10 C.F.R. § 54.21(c)(1)(iii).[144]

Thereafter, the Board issued LBP-08-25, in which it concluded that Entergy had met the requirements of section 54.21(c)(1) regarding the feedwater nozzle.[145] But it found differently regarding the core spray and reactor recirculation outlet nozzles.[146] Specifically, the Board found that Entergy's metal fatigue analyses of the core spray and reactor recirculation outlet nozzles had been submitted under subsection (ii)[147] — not subsection (iii) as Entergy had claimed since September 2007 and as the Staff had found in the SER.[148] As a result, the Board found that, as to these two components, Entergy had failed to comply with the relevant requirements of 10 C.F.R. §§ 54.21(c)(1) and 54.29, and that it therefore had not provided information sufficient for the Staff to find a reasonable assurance of safety under 10 C.F.R. § 54.29(a).[149] In support of its determination, the Board reasoned that completion of "[t]hese predictive time-limited aging analyses [is] a condition precedent to issuance of the license renewal."[150] The Board also

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[139] New England Coalition, Inc.'s (NEC) Motion to File a Timely New or Amended Contention (Mar. 17, 2008), at 3.

[140] *Id.*

[141] Order (Granting Motion to Amend NEC Contention 2A) (Apr. 24, 2008), at 2 (unpublished). Contention 2B is quoted in the text associated with note 11, *supra.*

[142] *See* LBP-08-25, 68 NRC at 791.

[143] *See* Entergy Answer to Staff Petition for Review at 6; LBP-08-25 at 779.

[144] *See* LBP-08-25, 68 NRC at 794.

[145] *Id.* at 822.

[146] *Id.*

[147] *See id.* at 824-26.

[148] In Amendment 34, Entergy addressed both the GALL Report (which provides guidance for compliance with subsection (iii) but not subsection (ii)) and the F_{en} (an analytical approach that the Staff accepts from applicants seeking to comply with subsection (iii)). Entergy also indicated that Amendment 34 is a follow-up document to Entergy's November 27, 2007 "update to the Aging Management Program (AMP) Audit Q&A Database" — a document that (as the "AMP" reference indicates) addressed the demonstration requirements of subsection (iii). *See* Letter from Ted A. Sullivan to NRC (Jan. 30, 2008), at 1 (ADAMS Accession No. ML080370478).

[149] LBP-08-25, 68 NRC at 780, 895.

[150] *Id.* at 895. *See also id.* at 794, 831.

rejected Entergy's and the Staff's position that Entergy should be permitted to make its calculations and analyses regarding those two components as late as 2 years before the start of the period of extended operation.[151] Based on these conclusions, the Board declined to authorize the license renewal but indicated that it would revisit the issue 45 days after Entergy had satisfactorily completed and served on the litigants "the confirmatory CUF_{en} analyses on the core spray and reactor recirculation [outlet] nozzles with satisfactory results without using the . . . Green's function methodology."[152]

The Board held that the adjudication would terminate if Entergy performed revised confirmatory analyses of the core spray and reactor recirculation outlet nozzles that met the following criteria:

(1) the analyses were "in accordance with the [Board's] guidance and the basic approach used in the . . . CUF_{en} analysis for the [feedwater] nozzle,"

(2) they "contain[ed] no significantly different scientific or technical judgments, and"

(3) "they demonstrated values less than [1.0]."[153]

On the other hand, if Entergy's revised CUF_{en} analyses failed to meet any one of these three criteria, then NEC could file new or amended contentions challenging the confirmatory analyses.[154] The Board declared that any such contention "must specifically state how the new analyses are not consistent with the legal requirement and the calculations performed for the feedwater nozzle."[155] The Board further instructed NEC not to "rehash or renew technical challenges that have already been raised and resolved in this proceeding."[156] The Board therefore held open Contentions 2A and 2B; it continued to hold Contention 2 in abeyance.[157]

The Staff filed a petition for review challenging the adverse rulings of LBP-08-25. Entergy, while awaiting action on the Staff's petition, responded to the Board's mandate and served the resulting CUF_{en} calculations on the Board and

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[151] *Id.* at 824-31.

[152] *Id.* at 895, *as clarified in* Order (Granting Entergy Motion for Clarification) (Dec. 22, 2008) (unpublished). *See also* LBP-08-25, 68 NRC at 832.

[153] *See id.* at 831-32.

[154] *Id.* at 832.

[155] *Id.* at 832 n.95.

[156] *Id.* In a later Order, the Board advised NEC that such contentions also must satisfy the requirements of 10 C.F.R. §§ 2.309(f)(1) and 2.309(f)(2). Order (Clarifying Deadline for Filing New or Amended Contentions) (Mar. 9, 2009) at 3 (unpublished).

[157] LBP-08-25, 68 NRC at 895.

parties.[158] Entergy later revised those calculations and stated that it intended to make still further revisions.[159] The Board responded by issuing an Order ruling that the period for reviewing the revised calculations and analyses would begin to run only upon Entergy's filing of its "final analyses of record"[160] for the core spray and reactor recirculation outlet nozzles. The next day, Entergy submitted "its final calculations of record for the confirmatory environmentally assisted fatigue (CUF_{en}) analyses" of those nozzles.[161] This chain of events had the effect of extending the deadline for revised contentions to April 24, 2009.

On that date, NEC filed a new contention, which we designate Contention 2C, challenging the adequacy of the March 10, 2009 CUF_{en} analyses of the core spray and reactor recirculation outlet nozzles.[162] Entergy and the NRC Staff opposed the motion.[163]

On July 8, 2009, the Board issued a final initial decision rejecting Contention 2C and terminating the proceeding.[164] The Board concluded:

> NEC's challenges to the assumptions made by Entergy are, in essence, challenges that either were made previously and already rejected by the Board, or were not made before and are now not timely. The new contention is based on assumptions that cannot be considered information that was "not previously available" or "materially different than information previously available" and therefore does not meet the requirements of 10 C.F.R. § 2.309(f)(2)(i) or (ii).[165]

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[158] Letter from Matias Travieso-Diaz to the Atomic Safety and Licensing Board (Jan. 8, 2009) (ADAMS Accession No. ML090230555).

[159] Letter from Matias Travieso-Diaz to the Atomic Safety and Licensing Board (Feb. 26, 2009) (ADAMS Accession No. ML090690302).

[160] Order (Clarifying Deadline for Filing New or Amended Contentions) (Mar. 9, 2009), at 3 (unpublished).

[161] Letter from Matias Travieso-Diaz to the Atomic Safety and Licensing Board (Mar. 10, 2009), at 1 (ADAMS Accession No. ML090840422), and attached documents. *See also* Letter from Michael J. Colomb, Entergy, to the Document Control Desk, NRC (Mar. 12, 2009) at 1 (ADAMS Accession No. ML090760976) (Amendment 38). Entergy did not, however, revise its January 8, 2009 "Calculation 0801038.301, Revision 0" for "Design Inputs and Methodology for ASME Code Fatigue Usage Analysis of Reactor Core Spray Nozzle" so, at least as to that particular calculation, the version that Entergy "sent to the parties on January 8, 2009 remains the final calculation of record." Letter from Matias Travieso-Diaz to the Atomic Safety and Licensing Board (Mar. 10, 2009), at 1 (ADAMS Accession No. ML090840422).

[162] NEC's Motion to File Contention 2C.

[163] *Entergy's Opposition to NEC's Motion to File a Timely New Contention* (May 18, 2009); *NRC Staff's Answer in Opposition to NEC Motion for Leave to File a New Contention* (May 19, 2009).

[164] LBP-09-9, 70 NRC at 48-49.

[165] *Id.* at 49.

NEC filed a timely petition for review from LBP-09-9.[166]

IV. ANALYSIS OF THE STAFF'S PETITION FOR REVIEW

With this background in mind, we turn to the Staff's petition for review.

A. The Board's Findings of Fact

The Staff argues that the Board's ruling on Contentions 2A and 2B reflects clearly erroneous factual findings that are implausible in light of the record viewed in its entirety.[167] According to the Staff, the Board erroneously stated that the specified CUF calculations are at issue when, in fact, the record generally and the admitted contentions in particular indicate that the contested issue is the adequacy of Entergy's CUF_{en} calculations[168] — including the environmental adjustment factor.[169]

We are "generally disinclined to upset *fact*-driven Licensing Board determinations,"[170] such as the statement to which the Staff objects. We find the Staff's argument cursory and lacking explanation as to why one inaccurate reference to the CUF (rather than the CUF_{en}) is material[171] to the Board's ruling regarding Contentions 2A and 2B.[172] Based upon our own review of LBP-08-25, we

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[166] In September 2009, following the close of the hearing record, the Staff issued an SSER that accepted the March 12, 2009 CUF_{en} calculations as the analyses of record for the core spray and reactor recirculation outlet nozzles. Safety Evaluation Report Related to the License Renewal of Vermont Yankee Nuclear Power Station, Supplement 1, § 4.3.3.2, at p. 4-4 (Sept. 2009) (SSER) (ADAMS Accession No. ML091200162) ("The staff's review of the confirmatory analyses for the [reactor recirculation outlet] and [core spray] nozzles confirmed that the calculations were performed in accordance with ASME Code requirements, the F_{en} values were calculated in accordance with staff guidance documents, and the resulting CUF_{en} values were within the acceptance limit of 1.0"). The SSER refers here to Amendment 38, filed March 12, 2009.

[167] Staff Petition at 11.

[168] As explained above, "CUF" is a means of quantifying the fatigue that a particular metal component experiences during plant operation. By contrast, "CUF_{en}" refers to a CUF that has been modified by an environmental adjustment factor (F_{en}) to reflect the environment inside a nuclear reactor. *See* note 9, *supra.*

[169] Staff Petition at 11 (citing LBP-08-25, 68 NRC at 830).

[170] *Oyster Creek,* CLI-08-28, 68 NRC at 675 (emphasis added).

[171] Materiality is a requirement for any fact-based argument in a petition for review. 10 C.F.R. § 2.341(b)(4)(i).

[172] We have repeatedly stated that we will not consider cursory, unsupported arguments. *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 *(Continued)*

conclude that, ultimately, the Board's misuse of the term "CUF" had no effect on its overall analysis.[173] We are therefore unconvinced that the Board's single misplaced reference to "CUF" constituted a factual error sufficiently serious to require reversal.

The Staff also argues that the Board ignored the fact that, according to clear record evidence, Entergy is implementing a fatigue monitoring AMP that is consistent with the GALL Report.[174] We address this argument in the context of the Staff's challenge to the Board's conclusion regarding the timing of the required demonstration pursuant to 10 C.F.R. § 54.21(c)(1)(iii) rather than here.[175]

B. The Board's Conclusions of Law

The crux of the Staff's legal argument is that the Board substantially erred in interpreting how, generally, an applicant may comply with section 54.21(c)(1) and how, specifically, Entergy did so.[176] Both the Board's and the Staff's positions are internally consistent, but they are based on different, and incompatible, assumptions. To set the context for our analysis, we summarize below the Board's and the Staff's respective positions.

In finding that Entergy's metal fatigue analyses of the core spray and reactor recirculation outlet nozzles neither complied with the ASME Code nor provided the requisite reasonable assurance pursuant to 10 C.F.R. § 54.29(a), the Board focused on a question regarding timing: whether Entergy permissibly could postpone performance of necessary metal fatigue analyses until 2 years prior to the period of extended operation.[177] The Board observed that a license renewal applicant has the choice of either preparing a one-time predictive TLAA pursuant to 10 C.F.R. § 54.21(c)(1)(i) or (ii), or making a commitment to managing aging by virtue of an aging management plan pursuant to 10 C.F.R. § 54.21(c)(1)(iii). The applicant must demonstrate, respectively, either that aging will not cause the

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NRC 317, 337 (2002); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Units 1, 2, and 3), CLI-00-18, 52 NRC 129, 132 (2000); *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 204 n.6 (2000).

[173] New York points out that, as a general matter, the acronyms CUF and CUF_{en} are used interchangeably. Brief Amicus Curiae by the States of New York and Connecticut, Hudson Riverkeeper, Inc., Hudson River Sloop Clearwater, and the Prairie Island Indian Community in Opposition to Staff's Petition for Review and in Support of Intervenors State of Vermont and the New England Coalition (Dec. 19, 2008), at 2 n.2, appended to Nonlitigants' Motion. While we consider this practice imprecise, we do not find it to have had a material impact on the Board's analysis.

[174] Staff Petition at 11 (citing LBP-08-25 at 825-26).

[175] *See* Section IV.B.2 of this decision, *infra.*

[176] Although the interpretation of sections 54.3 and 54.29 is also at issue, they revolve around the central question of how to construe section 54.21(c)(1).

[177] LBP-08-25, 68 NRC at 824.

components to fail during the period of extended operation, or that the effects of aging will be adequately managed during that period. The Board concluded that, in either case, the applicant must complete the analysis of record *prior to* the issuance of a renewed license.[178]

In this case, the Board determined that Entergy had not completed its metal fatigue analysis as required by the rules and, as a result, had made neither demonstration. Rather, in the Board's view, Entergy in Amendment 31 raised form over substance by merely "relabeling" its delayed TLAA as an AMP, which the Staff, in turn, improperly accepted as compliant with 10 C.F.R. § 54.21(c)(1)(iii).[179]

The Staff makes three interrelated arguments.[180] First, it asserts that Entergy's AMP is consistent with the GALL Report and therefore satisfies the demonstration requirements of 10 C.F.R. § 54.21(c)(1)(iii).[181] In this regard, the Staff takes specific exception to the Board's fundamental finding that Entergy simply "repackag[ed] its TLAA as an AMP" and that this "relabeling" effectively elevated "form over substance."[182] According to the Staff, Entergy in Amendment 31 explicitly modified its Fatigue Monitoring Program so that it conformed to the fatigue monitoring AMP provisions in the GALL Report.[183] Entergy did this, says the Staff, by removing both exceptions that the application had previously taken to the GALL Report[184] and, in particular, by making the consideration of environmentally assisted fatigue a part of the Fatigue Monitoring Program.[185] The

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[178] *Id.* at 824-25.

[179] *Id.* at 826.

[180] Staff Petition at 8-9.

[181] *Id.* at 11.

[182] LBP-08-25, 68 NRC at 826.

[183] Staff Petition at 5, 20 n.42.

[184] As stated above, in its original application, Entergy proposed a "Fatigue Monitoring Program." *See* Application, Appendix B at p. B-39. The original application stated that the Fatigue Monitoring Program is consistent with the Section X.M1 Metal Fatigue AMP in the GALL Report in all but two respects — it would not include environmental effects and it would not provide a periodic update of the fatigue usage calculations. *Id.* Amendment 31 removed those two exceptions to the GALL Report, making it (according to both Entergy and the Staff) fully consistent with Section X.M1, and therefore with 10 C.F.R. § 54.21(c)(1)(iii). *See* text associated with note 113, *supra*; SER § 3.0.3.2.10, at p. 3-73.

[185] Staff Petition at 20 n.42. Vermont opposes the Staff's first argument. Vermont argues that "incorporation by reference of guidance from [the GALL Report] or any other regulatory guide may only occur 'provided that the references are clear and specific.'" Vermont Opposition at 5 (citing 10 C.F.R. § 54.17(e)). Vermont further asserts that the relevant section of the GALL Report (Section X.M1) does not set forth a sufficiently specific program and does not offer sufficiently clear guidance to qualify for such incorporation by reference. Vermont is entitled to challenge the sufficiency of any guidance document on which Entergy relies. *See Metropolitan Edison Co.* (Three Mile Island Nuclear

(Continued)

Staff argues that Entergy's action places the metal fatigue portion of the application squarely within the parameters of 10 C.F.R. § 54.21(c)(1)(iii), requiring a demonstration that "the effects of aging . . . will be adequately managed" during the period of extended operation by means of an AMP.

The Staff's next argument is that, contrary to the Board's regulatory interpretation, Entergy's CUF_{en} analyses do not fall within the definition of TLAA in 10 C.F.R. § 54.3.[186] According to the Staff, the Board's misinterpretation of the regulatory definition of TLAA led the Board to conclude, erroneously, both that Entergy had not made the demonstration required under by 10 C.F.R. § 54.21(c)(1) and that the Board could therefore not make a finding of reasonable assurance under 10 C.F.R. § 54.29(a).[187]

The Staff's final argument on appeal is that the Board erred in holding that the completion of CUF_{en} calculations is a "condition precedent" to the NRC's approval of a license renewal.[188] The Staff maintains that neither the Commission's regulations nor the ASME Code require that license renewal applicants calculate CUF_{en}s. Instead, according to the Staff, license renewal applicants consider CUF_{en}s because the Staff recommended in the GSI-190 Closeout Memorandum that they "address the affects [sic] of the coolant environment on component fatigue life as aging management programs are formulated in support of license renewal."[189]

1. Summary

Based on our review of both the Board's analysis and the Staff's and other litigants' responsive arguments, all discussed below, we conclude that the Staff's regulatory interpretation is correct and that the Board erred in its rulings in LBP-08-25 regarding Contentions 2A and 2B. We observe, however, that, as is evidenced by our lengthy discussion of the events in this adjudication, the record before the Board was unusually complicated and quite muddled, and that the Board's confusion is therefore understandable. Although we do not affirm the Board's decision today, we nonetheless consider its analysis to be a well-reasoned effort to grapple with the complicated adjudicatory record.

As discussed below, we find two fundamental flaws in the Board's analysis. The first relates to Entergy's modification of its Fatigue Monitoring Program to

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Station, Unit 1), ALAB-698, 16 NRC 1290, 1299 (1982) (the adequacy of guidance may be litigated in individual licensing proceedings), *rev'd in part on other grounds,* CLI-83-22, 18 NRC 299 (1983). But it must do so with much more substance than appears in its Opposition brief. *See* note 172, *supra.*

[186] Staff Petition at 8.

[187] *Id.* at 15.

[188] *Id.* at 8, 9, 18.

[189] *Id.* at 13.

be consistent with the AMP in the GALL Report and thereby satisfy 10 C.F.R. § 54.21(c)(1)(iii). As the Staff correctly points out, Entergy ultimately did this by removing both of the exceptions that the application had previously taken to the generic AMP in the GALL Report — including the exception that omitted any consideration of environmentally assisted fatigue from Entergy's AMP. These modifications placed the metal fatigue portion of the application within the parameters of 10 C.F.R. § 54.21(c)(1)(iii). The record is clear that Entergy amended its application to include the revised Fatigue Monitoring Program on September 17, 2007.[190] The Board misunderstood Entergy's modifications and dismissed them as merely "relabeling" its demonstration in an effort to avoid its purported obligations under subsections (i) and/or (ii) of 10 C.F.R. § 54.21(c)(1).[191] In so concluding, the Board was not correct in equating the fatigue analyses under subsections (i) and (ii) with the fatigue analyses under subsection (iii). Further, the Board failed to recognize that an applicant may use similar or identical methodology to calculate the fatigue usage factor for the TLAA and for the AMP — regardless of how it seeks to comply with section 54.21(c)(1), whether through a predictive TLAA or by the use of an AMP.[192]

We also disagree with the Board's legal determination that CUF_{en}s are TLAAs and that the renewed license therefore may not issue without them. Our regulations in 10 C.F.R. § 54.3 define TLAAs as being contained in the current licensing basis. Because CUF_{en}s are not contained in Vermont Yankee's current licensing basis, they cannot be TLAAs and thereby a prerequisite to license renewal. The Staff's consideration of CUF_{en}s in its review of the Vermont Yankee license renewal application does not render the use of CUF_{en}s a requirement under our rules.

The Board's misunderstandings fundamentally undermine the rationale underlying its rulings on the merits of Contentions 2A and 2B. We conclude that the Board in LBP-08-25 should have found that Entergy had met its burden of proof under 10 C.F.R. § 54.21(c)(1)(iii) and ruled in favor of Entergy on the merits of Contentions 2A and 2B. We therefore reverse the portion of the Board's decision in LBP-08-25 dealing with Contentions 2A and 2B, related to the calculation of the CUF_{en} for the core spray and reactor recirculation outlet nozzles.

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[190] Amendment 31, *supra.*

[191] LBP-08-25, 68 NRC at 825-26.

[192] This conclusion applies equally to the Staff's factual argument that the Board ignored Entergy's implementation of a fatigue monitoring AMP that was consistent with the GALL Report and therefore in compliance with 10 C.F.R. § 54.21(c)(1)(iii). We agree with the Staff that the Board erred in failing to take this fact into account.

2. The Board's Interpretation of Section 54.21(c)(1)

The Board held that, if a license renewal applicant were permitted to demonstrate compliance with section 54.21(c)(1) *prior to* issuance of a renewed license merely by promising to demonstrate it *following* issuance of the renewed license, then the applicant would have no reason to perform the TLAAs now. The Board noted that an applicant would have ample reason to choose not to perform TLAAs, such as postponing the cost of the demonstration and avoiding the expenses of a hearing.[193] The Staff asserts that the Board's interpretation would force a license renewal applicant seeking to rely on 10 C.F.R. § 54.21(c)(1)(iii) to follow the requirements of sections (i) and/or (ii), thereby "collapsing subparagraph (iii) into [subparagraph] (ii) and rendering subparagraph (iii) superfluous."[194]

We agree with the Staff. As noted above, an applicant can satisfy the requirements of section 54.21(c)(1) in any of three ways — it may choose to demonstrate that its fatigue analyses remain valid through the period of extended operation under subsection (i), or that those analyses have been projected to the end of that period under subsection (ii), or that the effects of aging will be adequately managed during that period under subsection (iii) through, e.g., a commitment to implement an approved AMP. The Board made the understandable error of equating the fatigue analyses for an existing TLAA under subsections (i) and (ii) with the fatigue analyses for an AMP under subsection (iii). The underlying fatigue analysis calculations that support both a TLAA and an AMP are generally performed the same way, and they do have the same *general* purpose — to aid in providing reasonable assurance that "the effects of aging will be adequately managed," as required under sections 54.21(a)(3) and 54.29(a). But their *specific* purposes and results differ.

Predictive metal-fatigue TLAAs that are intended to demonstrate compliance with 10 C.F.R. § 54.21(c)(1)(i) or (ii) show that the predicted fatigue usage factor is less than the design code limit of 1.0 for the period of extended operation — a showing that would automatically resolve the metal fatigue issue in the applicant's favor.[195] By contrast, a fatigue monitoring program that an applicant conducts as an AMP under subsection (iii) is not intended to resolve *automatically* the metal-fatigue issue in the applicant's favor by use of a single, predictive calculation. Rather, its goal is to ensure that the design code limit is not exceeded during the period of extended operation. The "Detection of Aging Effects" element of the Metal Fatigue of Reactor Coolant Pressure Boundary AMP in the GALL Report recommends "periodic updates of the fatigue usage calculations" based on active

[193] LBP-08-25, 68 NRC at 826.

[194] Staff Petition at 18.

[195] The Board correctly points this out in LBP-08-25, 68 NRC at 791.

monitoring of high fatigue-usage locations.[196] In so doing, an applicant may use similar or identical methodology to calculate the fatigue usage factor for the so-called "predictive" TLAA and for the so-called "tracking" AMP. This is what Entergy did here.

Our regulations contain no requirement that an applicant complete a subsection (iii) fatigue analysis *prior* to the issuance of a renewed license, and an applicant need not do so unless the analysis is needed to support a demonstration that the tracking AMP will satisfy our regulatory requirements — here, such an analysis would be used to demonstrate that the AMP is consistent with the GALL Report. Both the Staff and Entergy assert that this exception does not apply here, and neither NEC nor Vermont has challenged the AMP's consistency with the GALL Report. Entergy expressly has committed to implement a tracking AMP that, it claims, comports with the GALL Report and is therefore consistent with 10 C.F.R. § 54.21(c)(1)(iii).[197] Likewise, the Staff has determined that Entergy's AMP is consistent with the GALL Report.[198] Regardless of whether Entergy intended during the early stages of this adjudication to proceed under 10 C.F.R. § 54.21(c)(1)(iii), we conclude that it is now Entergy's intent to do so — and we hold Entergy to the requirements of subsection (iii). This conclusion not only informs our response to the Staff's instant appellate argument but also undergirds our ruling in Part V.A, *infra,* to afford NEC and Vermont the opportunity to challenge the validity of Entergy's Fatigue Management Program.

We also disagree with the Board's conclusion that Entergy's future-oriented interpretation would avoid the whole point of the license renewal process — to demonstrate that aging will be properly managed.[199] Section 54.29(a) of our regulations speaks of both past and future actions, referring specifically to those that "*have been or will be taken* with respect to . . . managing the effects of aging . . . and . . . time-limited aging analyses. . . ."[200] Moreover, in *Oyster Creek,* we expressly interpreted section 54.21(c)(1) to permit a demonstration *after* the issuance of a renewed license: an "applicant's use of an aging management program identified in the GALL Report constitutes reasonable assurance that it *will* manage the targeted aging effect during the renewal period."[201] We reiterate here that a commitment to implement an AMP that the NRC finds is consistent with the GALL Report constitutes one acceptable method for compliance with 10 C.F.R. § 54.21(c)(1)(iii).

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[196] GALL Report § X.M1, at p. X M-1.

[197] *See, e.g.,* Amendment 31 at unnumbered pp. 1-2.

[198] SER § 3.0.3.2.10, at p. 3-73.

[199] LBP-08-25, 68 NRC at 826.

[200] 10 C.F.R. § 54.29(a) (emphasis added).

[201] *Oyster Creek,* CLI-08-23, 68 NRC at 468 (emphasis added).

The Board acknowledges our ruling in *Oyster Creek, supra,* but seeks to distinguish the language quoted above. The Board believes that our use of the future tense reflects nothing more than our recognition that licensees necessarily *implement* their AMPs during the extended operating period — that is, in the future. The Board therefore draws a distinction between "tracking" and "predictive" TLAAs. Regarding "tracking" TLAAs, the Board concludes that the regulations permit the recalculation of TLAAs after the grant of a renewed license in order to track how the actual calculations compare with those predicted in the license renewal application. In contrast, the Board finds that "predictive" TLAAs must be performed prior to the grant of the renewed license if they serve as the "analysis of record," which predicts that aging will "not be a problem" and thereby establishes that an AMP is not required.[202]

The Board's theory may be valid for license renewal applicants relying on 10 C.F.R. § 54.21(c)(1)(i) or (ii), but it is incorrect if applied to subsection (iii). It runs counter to the GALL Report — a guidance document that was prepared at our behest and that we have cited with approval.[203] The GALL Report provides that one way a license renewal applicant may demonstrate that an AMP *will* effectively manage the effects of aging during the period of extended operation is by stating that a program is "consistent with" or "based on" the GALL Report.[204]

An applicant may commit to implement an AMP that is consistent with the GALL Report and that *will* adequately manage aging. But such a commitment does not absolve the applicant from demonstrating, *prior* to issuance of a renewed license, that its AMP is indeed consistent with the GALL Report. We do not simply take the applicant at its word. When an applicant makes such a statement, the Staff will draw its own independent conclusion as to whether the applicant's programs are in fact consistent with the GALL Report. This is what the Staff did here.[205]

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[202] LBP-08-25, 68 NRC at 827 (capitalization and hyphens omitted).

[203] *See Oyster Creek,* CLI-08-23, 68 NRC at 468.

[204] In the GALL Report, the Staff recognizes acceptable AMPs, including one for metal fatigue. A license renewal application may reference the GALL Report to demonstrate that the applicant's AMP corresponds to one that has been reviewed and approved in that Report.

[205] For example, the Staff conducted audits on October 9-10, 2007 (*see* SER § 4.3.3.2, at pp. 4-38 & 4-41), February 14, 2008 (*see* SER § 4.3.3.2, at pp. 4-41 to 4-42), and February 18-20, 2009 (SSER § 4.3.3.2, at p. 4-3). It held a meeting with Entergy on January 8, 2008 (*see* SER § 4.3.3.2, at p. 4-40). It held telephone conference calls with Entergy on December 18, 2007 (*see* SER § 4.3.3.2, at p. 4-40), October 23, 2007 (Memorandum, Summary of Telephone Conference Call Held on October 23, 2007, Between the U.S. Nuclear Regulatory Commission and Entergy Nuclear Operations, Inc., Concerning Audit Questions Pertaining to the Vermont Yankee Nuclear Power Station License Renewal Application (Jan. 2, 2008) (ADAMS Accession No. ML073610469)), and October 16, 2007 (Memorandum, Summary of Telephone Conference Call Held on October 16, 2007, Between the U.S.

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Finally, we are unpersuaded by Vermont's arguments in support of the Board's rulings. Vermont interprets our language in Oyster Creek as merely a description of "what is a satisfactory minimum that an application must meet, not that the mere assertion of an intent to comply with GALL would remove from consideration a challenge by an intervenor, based upon . . . the theory that there is insufficient detail in the GALL commitment for applicant to 'demonstrate' that it will have an adequate AMP."[206] We do not accept Vermont's limiting interpretation of our statement in the *Oyster Creek* decision. We find nothing in that decision to support Vermont's reading, which runs contrary to the reasoning in today's decision. We also observe that Vermont provides no specific examples of the GALL Report's purported lack of specificity.[207]

Vermont also argues that the GALL Report is merely "a guidance document and compliance with it does not foreclose a challenge to the adequacy of the GALL[-]approved program any[ ]more than failing to comply with the GALL[-]approved program is sufficient to demonstrate that an application is deficient."[208] Vermont likewise asserts that, at most, Entergy's "commitment to comply with the GALL provision related to metal fatigue, [may] satisf[y] the Staff but [it] does not and cannot prevent the Board from reviewing the substance of the commitment and . . . explor[ing] any deficiencies alleged in that commitment to the extent they are raised by an intervenor."[209] Vermont is correct on both of these counts, but to no avail. The Board did not find that the GALL Report is somehow binding upon Entergy. And of course, any AMP is subject to challenge before a board in a license renewal proceeding.

3. The Role of the CUF_{en}

The Board concluded in LBP-08-25 that:

> [T]he CUF *must* be adjusted to account for . . . environmental factors (i.e., the CUF[s] must be adjusted with the F_{en}) in order to provide reasonable assurance that metal fatigue failure will not occur. [A license renewal application's] analysis of metal fatigue that ignored the known and substantial effects of the [light-water

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Nuclear Regulatory Commission and Entergy Nuclear Operations, Inc., Concerning Audit Questions Pertaining to the Vermont Yankee Nuclear Power Station License Renewal Application (Nov. 26, 2007) (ADAMS Accession No. ML073300152)). And it issued numerous requests for additional information to Entergy. *See, e.g.,* RAI 4.3.3-1 (Requests for Additional Information for the Review of the Vermont Yankee Nuclear Power Station, License Renewal Application (July 24, 2007) (ADAMS Accession No. ML072000256)); notes 119, *supra,* & 220, *infra*; SER § 4.3.3.2, at p. 4-43.

[206] Vermont Opposition at 5.

[207] As already noted, we do not consider cursory, unsupported arguments. *See* note 172, *supra.*

[208] Vermont Opposition at 5.

[209] *Id.* at 6.

reactor] environment (the F_{en}) would be insufficient, both as a technical and as a legal matter under 10 C.F.R. § 54.21(c)(1)(i), (ii) or § 54.29(a)."[210]

In so ruling, the Board treated CUF_{en}s as if they were existing TLAAs governed by subsections (i) and (ii). The Staff challenges the Board's ruling that the CUF_{en} calculations in question are TLAA demonstrations and that the renewed license therefore may not issue without them.[211] The Staff's argument is that (1) TLAAs that are prerequisites to license renewal are defined in 10 C.F.R. § 54.3 as being contained in the current licensing basis, (2) metal fatigue analyses for the components *that use the environmental adjustment factor* are not contained in the preapplication current licensing basis, and (3) they therefore cannot be required as a prerequisite to license renewal.[212] We agree with the Staff that the Board erred in this respect, and we address the assumption on which the Board rests its ruling.

The Board assumes that "[t]he CUF_{en} analyses are 'time-limited aging analyses' within the meaning of 10 C.F.R. § 54.3(a)."[213] In the Board's view, the term "TLAA" includes both the metal-fatigue analyses previously embedded in the applicant's licensing basis *and* the environmental adjustment factors (F_{en}) that Entergy provided to assess accurately the likelihood that the components would fail due to metal fatigue during the period of extended operation.[214]

We disagree. As the Staff correctly observes, "TLAAs are *existing* analyses that are part of the plant's [current licensing basis] . . . They are not new analyses. . . . [T]he requirements of 10 C.F.R. § 54.21(c)(1) do not apply to Vermont Yankee's CUF_{en} TLAAs because Vermont Yankee's [current licensing basis] does not include CUF_{en} TLAAs (therefore they do not fall within the definition of TLAA in § 54.3)."[215] None of our regulations requires that a license renewal applicant calculate CUF_{en} — *that is, adjust the CUF by applying the environmental adjustment factor* — prior to the issuance of a renewed license. We recognize that both the SRP and GSI-190 Closeout Memorandum *recommend* the inclusion of the environmental adjustment factor in CUF calculations. But as guidance documents, they cannot impose this as a requirement.[216]

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[210] LBP-08-25, 68 NRC at 824. *See also id.* at 830, 895.

[211] Staff Petition at 8-9 (citing LBP-08-25, 68 NRC at 895), 15-18 (citing *id.* at 789, 793, 830).

[212] Staff Petition at 15-18.

[213] LBP-08-25, 68 NRC at 789.

[214] *Id.* at 830.

[215] Staff Petition at 16 (emphasis in original). *See also* Entergy Answer to Staff Petition for Review at 10-11, 13 n.16, 16.

[216] *See, e.g., Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 264 (2001).

We recognize the apparent inconsistency of the Staff's position in this proceeding.[217] The Staff has, as a practical matter, treated CUF_{en} calculations and analyses as a requirement by directly requesting Entergy to consider F_{en}. For instance, Entergy in Amendment 33 changed the F_{en} from the one it had used in its prior calculations. The Staff rejected this submission, but not because it had included an F_{en}. Rather, the Staff requested that Entergy resubmit the data *using the previous* F_{en}, so that the Staff could make a valid comparison of Entergy's current and prior metal fatigue data.[218] Similarly, the Staff in its SER cited the SRP for the proposition that "the applicant *must* address . . . the effects of the coolant environment on component fatigue life when aging management programs are formulated to support license renewal,"[219] and the Staff made its ultimate "reasonable assurance" finding for the metal fatigue analyses taking into account the F_{en}. These are only two of many such instances.[220] These inconsistencies may have contributed to the confusion on the record.

Finally as to this issue, we address Vermont's argument in support of the Board's conclusion that CUF_{en}s are TLAAs. According to Vermont, the mere fact that an applicant has agreed to implement an AMP does not free it of its "obligation to conduct a proper CUF_{en} analysis as a prerequisite to designing

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[217] The Board commented upon this inconsistency. LBP-08-25, 68 NRC at 826 and 830 (noting that the SER considered CUF_{en}s to be TLAAs). *Cf.* Motion for Leave by the States of New York and Connecticut, Hudson Riverkeeper, Inc., Hudson River Sloop Clearwater, Inc., and the Prairie Island Indian Community to Submit Brief Amici Curiae in Opposition to Staff's Petition for Review and in Support of Intervenors State of Vermont and the New England Coalition (Dec. 19, 2008), at 10-11 (where *amici* New York et al. point out that the NRC Staff had actually "supported industry's suggestion to incorporate F_{en} into CUF analyses when . . . the Electric Power Research Institute . . . originally proposed the idea in 1999," and that the "Staff stated clearly that [e]nvironmentally assisted fatigue degradation should be addressed in [AMPs] developed for license renewal" (citations and internal quotation marks omitted)). *See also* GSI-190 Closeout Memorandum, Att. 1, Exhibit C ("Interaction with Industry"), at 1 (stating that "[t]he staff agrees with the concept of using an environmental correction factor (F_{en}) to obtain fatigue usage reflecting environmental effects").

[218] *See* SER § 4.3.3.2, at p. 4-40; LBP-08-25, 68 NRC at 791, 818; Memorandum, "Summary of Meeting Held on January 8, 2008, Between the U.S. Nuclear Regulatory Commission Staff and Entergy Nuclear Operations, Inc., Representatives to Discuss the Response to a Request for Additional Information Pertaining to the Vermont Yankee Nuclear Power Station License Renewal Application (Jan. 31, 2008), at 2 (ADAMS Accession No. ML080220508).

[219] SER § 4.3.3.2, at p. 4-33 (emphasis added), referring to SRP § 4.3.3.2, at p. 4.3-7. *See also* SRP § 4.3.1.2, at p. 4.3-3 ("licensees are to address the effects of coolant environment on component fatigue life as aging management programs are formulated in support of license renewal").

[220] *See, e.g.,* Draft RAI 4.3.3-3, appended to E-mail from Jonathan Rowley to dmannai@entergy.com; hmetell@entergy.com; jdevinc@entergy.com (Dec. 21, 2007 at 12:22:52 PM), entitled "12/18 meeting summary and draft RAI" (ADAMS Accession No. ML073650118); Vermont Yankee Nuclear Power Station License Renewal Application; Requests for Additional Information (RAI); RAI 4.3.3-1 (July 24, 2007) (ADAMS Accession No. ML072000256).

the appropriate AMP."[221] Vermont asserts that, "[w]ithout the CUF_{en} analysis, identifying which, if any, components will have a CUF_{en} in excess of 1.0 and at what point in their operating history that is likely to occur, the parameters of the AMP monitoring cannot be determined and an applicant would not be able to demonstrate that it has a technically acceptable AMP.[222] Vermont's position lacks legal support. We see nothing in our regulations to suggest that "baseline" CUF_{en} calculations are *prerequisites* to establish the "parameters" of the AMP.

For all of these reasons, we reverse the Board's ruling that because Entergy had ignored the effects of F_{en}, its license renewal application was legally and technically insufficient.

V. ANALYSIS OF NEC'S PETITION FOR REVIEW

Following the Board's decision in LBP-08-25, the proceeding continued until the issuance of the Board's final initial decision in LBP-09-9. There, the Board ultimately found against NEC and terminated the proceeding. NEC has now appealed LBP-09-9. Our resolution of the Staff's petition for review renders it unnecessary for us to consider NEC's petition for review insofar as it challenges the Board's ruling that Contention 2C was inadmissible. Nevertheless, we exercise our discretion to do so, and we both reject those challenges and affirm the portions of LBP-09-9 addressing that contention. However, based on our resolution of the issues in the Staff's petition for review, we also find that NEC has been deprived of the opportunity, promised by the Board, to "revitalize" its original Contention 2.[223] We therefore remand the proceeding for the limited purpose of according NEC that opportunity.

A. Contention 2

Contention 2, as originally submitted, argues that Entergy's application does not include an adequate plan to monitor and manage the effects of aging due to metal fatigue. NEC complains that the Board failed to provide for the adjudication of Contention 2, and asks us to order a full adjudication of that contention by a newly constituted Board.[224] In support, NEC directs our attention to the procedural history associated with that contention.[225] The Board initially admitted

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[221] Vermont Opposition at 4.

[222] *Id.*

[223] LBP-08-25, 68 NRC at 832. *See also* LBP-07-15, 66 NRC at 271 (stating that NEC could "amend" Contention 2).

[224] NEC Petition at 2, 3.

[225] *Id.* at 5, 7.

Contention 2. When the Board later admitted Contention 2A, it held Contention 2 in abeyance, ruling that the parties would not litigate Contention 2 unless (and until) NEC prevailed on Contention 2A, and Entergy proposed a new metal fatigue AMP differing from the original Fatigue Monitoring Program.[226] On appeal, NEC presents two arguments regarding its original Contention 2.

The first is that the Board forced NEC to litigate Contention 2 without giving NEC notice sufficient to enable it to prepare for such litigation. NEC states that when it filed its statement of position, testimony, and exhibits prior to the July 2008 evidentiary hearing, it was "firmly under the impression that Contention 2 was held in abeyance while Contentions 2A and 2B would first be litigated."[227] NEC claims that contrary to the plan to hold Contention 2 in abeyance, the Board, on June 24, 2008, announced that Contention 2 (along with Contentions 2A and 2B) would be considered at the oral hearing.[228] According to NEC, its counsel protested that NEC had prepared for a hearing on only Contentions 2A and 2B, but the Board nonetheless conducted a hearing on all three contentions.[229]

NEC's argument borders on the frivolous. The Board did not consider Contention 2 in the evidentiary hearing, nor did it address that contention's admissibility or merits in either LBP-08-25 or LBP-09-9. To the contrary, the record is clear that the Board repeatedly indicated — both during the evidentiary hearing and in LBP-08-25 — that it was *not* considering Contention 2 at that time, and was continuing to hold it in abeyance.[230]

NEC's second argument is that it has been deprived of its opportunity to litigate Contention 2. On this point, we agree. NEC never had the opportunity to revise this contention.

In its merits rulings on Contentions 2A and 2B, the Board found in favor of NEC insofar as Entergy's CUF_{en} analyses for the core spray and reactor recirculation

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[226] LBP-07-15, 66 NRC at 271.

[227] NEC Petition at 9.

[228] *Id.*

[229] *Id.* at 9-10.

[230] *See* LBP-08-25, 68 NRC at 779 n.1 ("Contention 2 is held in abeyance"), 780 ("Contention 2 will be held in abeyance"), 789 ("This partial initial decision does not deal with the original Contention 2"), 896 ("[t]his Partial Initial Decision . . . leaves Contention 2 open and in abeyance"); Transcript of Evidentiary Hearing (July 21-24, 2008) (Tr.) at 737 ("Contention 2 . . . is now stayed by order of the Board pending the Board's decision of Contentions 2a and 2b") (July 21, 2008), Although the Board occasionally referred to "Contention 2" at other times during the hearing, the context of those references indicates that the Board was merely using the phrase as a shorthand for "Contention 2A and Contention 2B." *See* Tr. at 712, 720, 759, 876 (July 21, 2008); Tr. 885 (July 22, 2008); Tr. 1183 (July 23, 2008).

outlet nozzles were insufficient under 10 C.F.R. § 54.21(c)(1)(ii).[231] The Board gave Entergy the choice of either performing additional, revised CUF_{en} analyses for those nozzles or submitting an AMP.[232] The Board stated that if Entergy chose to submit revised analyses (i.e., TLAAs under section 54.21(c)(1)(ii)), then NEC could challenge those revised analyses,[233] but if Entergy instead chose to prepare a revised AMP under section 54.21(c)(1)(iii), then NEC could "revitalize dormant Contention 2" challenging the adequacy of that AMP.[234] The record is unclear as to whether Entergy submitted the March 10, 2009 calculations under subsection (ii) or (iii) of 10 C.F.R. § 54.21(c)(1).[235] Consequently, the calculations that Entergy submitted in response to the Board's instructions could be construed to fall within either of the Board's two options.

Given that the Board in LBP-08-25 had construed Entergy's application and amendments as falling under 10 C.F.R. § 54.21(c)(1)(ii), it is understandable that the Board in LBP-09-9 would have considered it unnecessary to revisit Contention 2. After all, under the Board's construction, Contention 2 would be irrelevant because it addresses only an AMP under 10 C.F.R. § 54.21(c)(1)(iii).

But as explained above, the record as a whole indicates that Entergy's submissions provide support for its compliance with subsection (iii) rather than subsection (ii).[236] At first glance, NEC arguably could be faulted for failing to exercise its right to amend Contention 2. NEC did not renew its challenge to the AMP's sufficiency. And it mentioned Entergy's AMP only once in its motion to proffer Contention 2C, and then only in a description of the procedural history that led up to Contention 2C.[237] Under these circumstances, we cannot conclude

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[231] LBP-08-25, 68 NRC at 830-31. The Board adjudicated Contentions 2A and 2B under subsection (ii). *See, e.g., id.* at 794 ("The litigation concerning Contentions 2A and 2B focused on subsection 54.21(c)(1)(ii)").

[232] *Id.* at 831.

[233] *Id.* at 831-32.

[234] *Id.* at 832. Likewise, in LBP-07-15, the Board stated: "If Entergy proposes a new metal fatigue management [i.e., monitoring] program that differs from the one originally submitted in the Application, then NEC may need to amend NEC Contention 2 to address and support its challenges to the revised program." 66 NRC at 271.

[235] Entergy's calculation packages cite neither subsection. *See* attachments to Letter from Matias Travieso-Diaz to the Atomic Safety and Licensing Board (Mar. 10, 2009) (ADAMS Accession No. ML090840422). Nor does Amendment 38, which Entergy submitted about the same time.

[236] Given Entergy's commitment to implement the Fatigue Monitoring Program during the period of extended operation, we view Entergy's latest CUF_{en} calculations for the core spray and reactor recirculation outlet nozzles as part of its AMP. The calculations constitute "corrective actions" in the form of "a more rigorous analysis of the component to demonstrate that the design code limit will not be exceeded during the extended period of operation" pursuant to the GALL Report § X.M1, at pp. X M-1 to X M-2.

[237] NEC's Motion to File Contention 2C at 3.

that NEC somehow intended Contention 2C to be a revised version of Contention 2.

Yet when we look deeper, we find that NEC had no reason to believe it needed to revise Contention 2 at the time it submitted Contention 2C. The Board had considered the application under subsection (ii), and had adjudicated two of NEC's previous contentions under that subsection. NEC was therefore, in our view, justified in assuming that it should base its challenges to Entergy's March 2009 calculations upon that same subsection, rather than revising its Contention 2 pursuant to a seemingly irrelevant subsection (iii). Moreover, throughout this proceeding, a great deal of confusion has hung over the following question: Upon which subsection of 10 C.F.R. § 54.21(c)(1) does Entergy seek to rely? The Board and the Staff were themselves confused regarding the answer to this question at various points in this adjudication.[238] Under the circumstances, we will not fault NEC for drafting Contention 2C under the assumption that subsection (ii) was the governing regulation.

Finally, we see no other time in this proceeding where NEC properly could have re-raised or revised Contention 2. Although Entergy revised its AMP on September 17, 2007, the Board's instruction in LBP-07-15 precluded NEC from challenging it prior to the Board's ruling in favor of NEC in LBP-08-25: "the parties are not to litigate Contention 2 unless and until Entergy returns to reliance on a metal fatigue management program (as would likely happen if NEC prevails on NEC Contention 2A)."[239] For the same reason, NEC could not have modified Contention 2 between the issuances of LBP-08-25 and LBP-09-9, at least regarding the core spray and reactor recirculation outlet nozzles. Nor, as to those two components, could NEC have raised the matter in an appeal of LBP-08-25. NEC was the winner in that decision.[240] Moreover, appeals of partial initial decisions are not the proper procedural context in which to revise contentions.[241]

Events have overtaken Contention 2 in that Entergy has remedied the *initial* vagueness to which NEC objected. Therefore, NEC may not revive the original Contention 2. However, the Board also promised NEC an opportunity to revise that contention.[242] For these reasons, we conclude that NEC should have the opportunity to amend its original Contention 2. Given that Vermont adopted

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[238] The Staff itself indicated on July 9, 2008, that it had been confused as to which subsection Entergy had been relying. NRC Staff's Brief in Response to Board Order (July 9, 2008), at 1-4. For a discussion of the Board's confusion, *see* Part IV.B of this decision, *supra.*

[239] 66 NRC at 271.

[240] *See, e.g., Gooden v. Neal,* 17 F.3d 925, 935 (7th Cir. 1994); *Abbs v. Sullivan,* 963 F.2d 918, 924 (7th Cir. 1992) ("a winner cannot appeal a judgment").

[241] *See generally* 10 C.F.R. § 2.309(f).

[242] *See* note 234, *supra,* and associated text.

NEC's Contention 2,[243] it likewise may participate in the litigation of any revised version of that contention. If NEC and/or Vermont choose to take advantage of this opportunity,[244] then the Board should rule expeditiously on the revised contention's admissibility. And if the Board rules that the revised contention is admissible, then the Board should conduct an expedited evidentiary hearing.

In the event of an evidentiary hearing on a revised version of Contention 2, the scope of the factual issues associated with the revised contention shall be limited to the adequacy of the Fatigue Monitoring Program. The parties shall not relitigate the adequacy of the CUF_{en} calculations.

B. The Board's Neutrality

NEC asserts that the Board conducted the hearing "in a manner overall prejudicial to NEC's case,"[245] and therefore asks us to disqualify the entire current Board and to appoint three new judges to preside over the remainder of the case.[246] NEC offers examples of what it considers the Board's prejudicial conduct[247] and

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[243] *See* LBP-06-20, 64 NRC at 206-08; Vermont's Notice of Intent to Adopt Contentions and Motion for Leave to Be Allowed to Do So (June 5, 2006).

[244] Because Vermont adopted original Contention 2, it may offer a revised version of that contention, and also may participate in any further proceedings regarding any revision of Contention 2 that NEC submits.

[245] NEC Petition at 12.

[246] *Id.* at 3 (for Contention 2), 19 (for Contention 2C). NEC's request for disqualification contravenes four different NRC procedural requirements — (1) parties must not raise arguments or issues for the first time on appeal; (2) a movant must first file with the Board the disqualification motion before seeking an appellate determination of the motion; (3) such a motion be filed at the earliest moment after the moving party obtains knowledge of the facts demonstrating a basis for disqualification; and (4) petitioners on appeal must provide us with transcript citations to the portions of the hearing about which they complain. We could therefore reject this entire line of argument on procedural grounds and end our discussion here. But given our "established practice of refusing to use procedural technicalities to avoid addressing disqualification motions" (*Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-9, 47 NRC 326, 330 (1998)) and of treating *pro se* litigants more leniently than litigants with counsel (*U.S. Enrichment Corp.,* CLI-01-23, 54 NRC at 272), we will consider the merits of NEC's request.

[247] *See, e.g.,* NEC Petition at 12 (a "snarled admonition to 'put your hand down . . . we're not in school here'"), 12-13 (treatment of NEC testimony "with skepticism, scorn, and rude interruptions"); New England Coalition's Motion for Reconsideration of the Licensing Board's Partial Initial Decision (Dec. 17, 2008) at 3 (incorporated by reference into NEC Petition at 14) (a grant of permission for the licensee to introduce testimony in the form of a slide show-illustrated tutorial but a refusal to permit NEC to make a countervailing presentation); *id.* ("the Board refused to permit NEC to show, for discussion purposes, an enlarged version of an exhibit graph that in its original size had already been introduced into evidence").

We disapprove of incorporation by reference in petitions for review, where, as here, it has the effect

(Continued)

concludes that, "while no single act or display on the part of the Board, crossed the threshold of . . . error, it is impossible for NEC to see how the Board's overall attitude did not color its findings."[248]

To prevail in a disqualification motion, NEC first must demonstrate that the purported instances of bias had a substantial impact on the outcome of this proceeding.[249] NEC has not shown that the Board's behavior affected the Board's final decision in any way prejudicial to NEC. NEC's cursory conclusion does not constitute such a showing.

To the extent NEC may be relying upon the adverse result in LBP-09-9 as proof of prejudice, then its reliance is unavailing. The mere fact of adverse findings and rulings on the merits does not imply a biased attitude on the Board's part.[250] Alternatively, to the extent NEC relies on LBP-08-25, then NEC ignores the fact that it was the partial victor in that decision, convincing the Board that Entergy had not yet met its burden of proof to show that the core spray and reactor recirculation outlet nozzles had satisfied all of our regulatory requirements.[251]

To prevail in a disqualification motion, NEC also must show either a bias against NEC or its counsel based upon matters outside the record or a "pervasive bias" against NEC based upon matters in the record. Absent such a showing, we do not remove judges from adjudications.[252]

NEC's specific assertions of bias do not justify disqualifying any of the Board members — much less the entire Board. For instance, NEC's complaints concerning the Board's skepticism of the NEC expert witness's testimony focus on the Board's witness credibility rulings. As an appellate body, we are loath to

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of bypassing the page limits set forth in our regulations. *See Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 278 n.205 (2010); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 641 n.40 (2004); *Consolidated Edison Co. of New York* (Indian Point, Units 1 and 2), CLI-01-19, 54 NRC 109, 132-33 & nn.17-18 (2001); 10 C.F.R. § 2.341(b)(2) (petitions for review may not exceed 25 pages). Here, however, we exercise our discretion to consider the two incorporated examples.

[248] NEC Petition at 13.

[249] *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-788, 20 NRC 1102, 1151 (1984) (citing *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1096 (1983)).

[250] *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-644, 13 NRC 903, 923 (1981).

[251] LBP-08-25, 68 NRC at 831-32.

[252] *See Joseph J. Macktal,* CLI-89-14, 30 NRC 85, 91-92 (1989); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-749, 18 NRC 1195, 1200 (1983) (regarding "pervasive bias"). *Cf. Nuclear Information and Resource Service v. NRC,* 509 F.3d 562, 571 (D.C. Cir. 2007) ("an agency official should be disqualified only where a disinterested observer may conclude that the official has in some measure adjudged the facts as well as the law of a particular case in advance of hearing it" (citations and internal quotation marks omitted)).

address this matter, given that we lack the Board's ability to observe the demeanor of the parties' expert witnesses in general and NEC's witness in particular.[253]

Other NEC objections concern the Board's case management decisions, such as determinations of whether to permit additional slide shows or enlarged exhibits. This kind of ruling lies well within the discretion of the Board[254] and involves matters for which our deference to the Board is at its highest.[255] Still other objections involve Board members' looks or tones of voice. We have held that "extra-record conduct such as stares, glares and scowls do not constitute evidence of personal bias."[256] Nor do "occasional outbursts towards counsel,"[257] or a judge's use of "strong language toward a party or in expressing his views on matters before him,"[258] or "friction between the court and counsel, including intemperate and impatient remarks by the judge."[259] Diligent, even aggressive, probing for weaknesses in a witness's or counsel's position may be necessary if presiding officers are to fulfill their duty to develop an adequate record that will contribute to informed decisionmaking.[260] To enable them to fulfill that duty, we have given presiding officers broad authority to examine witnesses at evidentiary hearings.[261] Similarly, presiding officers always have been entitled to question the parties' counsel at oral argument hearings.[262] And as our hearings have moved away from

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[253] *See Andrew Siemaszko,* CLI-06-16, 63 NRC 708, 718-19 (2006); *Watts Bar,* CLI-04-24, 60 NRC at 189, 199; *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-27 (2003); *Aharon Ben-Haim,* CLI-99-14, 49 NRC 361, 364 (1999).

[254] *See, e.g., International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-02-13, 55 NRC 269, 273 (2002) ("issues of case management [are among the] areas where we are loath to second-guess the judgments of our presiding officers").

[255] *Cf. White Mesa,* CLI-02-13, 55 NRC at 273 ("In procedural and scheduling matters, where first-hand contact with and appreciation for all the circumstances surrounding a case are necessary, maximum reliance on the proper discretion of a [presiding officer] is essential") (quoting *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), CLI-74-16, 7 AEC 313, 314 (1974)).

[256] *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), CLI-82-9, 15 NRC 1363, 1366 (1982).

[257] *Id.*

[258] *Macktal,* CLI-89-14, 30 NRC at 91 (quoting *Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), CLI-85-5, 21 NRC 566, 569 (1985)).

[259] *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-748, 18 NRC 1184, 1187 (1983) (citing *Hamm v. Members of Board of Regents of State of Florida,* 708 F.2d 647, 651, *reh'g denied,* 715 F.2d 580 (11th Cir. 1983)).

[260] *Commonwealth Edison Co.* (Zion Station, Units 1 and 2), ALAB-222, 8 AEC 229, 236-37, *aff'd in part on other grounds,* CLI-74-35, 8 AEC 374 (1974); *Commonwealth Edison Co.* (LaSalle County Nuclear Power Station, Units 1 and 2), CLI-73-8, 6 AEC 169, 170 (1973).

[261] *See* 10 C.F.R. §§ 2.319(i), 2.1208(b).

[262] *See* 10 C.F.R. § 2.331.

the traditional trial-type adversarial format and toward a more informal model,[263] the inquisitorial role of the presiding officer necessarily has increased.[264]

In sum, we see no overall pattern of bias by the Board, and we are unwilling to look behind its rulings without a great deal more evidence of prejudicial conduct than NEC has presented to us here.

C. Admissibility of Contention 2C

In LBP-08-25, the Board directed Entergy to submit additional CUF_{en} analyses (i) performed "in accordance with the . . . approach used in the confirmatory CUF_{en} analysis for the [feedwater] nozzle," (ii) recalculated "in accordance with the ASME Code, NUREG-6583 and [NUREG]-5704, and all other regulatory guidance," (iii) not using "significantly different scientific or technical judgments" than those used in the analysis for the feedwater nozzle, and (iv) "demonstrat[ing] values less than unity" (i.e., 1.0).[265]

The Board instructed NEC that it could file new contentions *only* if Entergy's CUF_{en} analyses failed to satisfy any of these requirements.[266] The Board also warned NEC that any new contentions must not "rehash or renew any technical challenges that have already been raised and resolved in this proceeding (e.g., dissolved oxygen, outdated equations, etc.), but rather must specifically state how the new analyses are not consistent with the legal requirement and the calculations performed for the feedwater nozzle."[267]

NEC responded to the Board's invitation by filing a new contention (2C) arguing that "Entergy has not *properly* recalculated the Core Spray and [Reactor] Recirculation Outlet nozzle CUF_{en}s such that they demonstrate that these

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[263] *See Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-31, 60 NRC 686, 692-93 (2004).

[264] *Cf.* Final Rule, 69 Fed. Reg. at 2196 ("the Commission acknowledges that this approach [the informal procedural rules of Part 2, Subpart L] places greater emphasis and responsibility on the presiding officer to oversee the development of a full and complete record . . ."); *Vermont Yankee,* LBP-04-31, 60 NRC at 692 (quoting Final Rule, *supra*).

[265] LBP-08-25, 68 NRC at 831-32. Regarding the fourth instruction, see SRP § 4.3.1.1.1, at p. 4.3-1 ("A Section III Class 1 fatigue analysis requires the calculation of the 'cumulative usage factor' (CUF) based on the fatigue properties of the materials and the expected fatigue service of the component. The ASME Code limits the CUF to a value of less than or equal to one for acceptable fatigue design.").

[266] LBP-08-25, 68 NRC at 831-32.

[267] *Id.* at 832 n.95. *See also* Order (Clarifying Deadline for Filing New or Amended Contentions) (Mar. 9, 2009), at 3 (unpublished) ("the schedule is not being held open as an opportunity for NEC to file mere commentary or other responses to the final confirmatory CUF_{en}s. It is for the filing of new or amended contentions, meeting the requirements of 10 C.F.R. § 2.309(f)(1) and (2) and the criteria set forth in [LBP-08-25] at [pp. 831-32].").

important components will not fail during the period of extended operation."[268] According to NEC, Entergy ignored regulatory guidance by relying on technically and factually flawed scientific judgments to calculate the final core spray and reactor recirculation outlet CUF_{en} analyses. More specifically, NEC argued that Entergy made four inappropriate assumptions: "(1) a fully developed, uniform flow in calculating the heat transfer coefficient during forced convection flow, (2) that the heat transfer coefficient did not vary in the vertical direction within the nozzles during natural convection flow, (3) a constant dissolved oxygen . . . concentration, and (4) the absence of cracks in the [reactor recirculation outlet] nozzle."[269]

In LBP-09-9, the Board rejected NEC's Contention 2C on the ground that NEC had "failed to satisfy either the requirements specified in [its] Partial Initial Decision or the new contention pleading requirements of 10 C.F.R. § 2.309(f)(2)(i)-(iii)."[270] The Board concluded that NEC had "fail[ed] to show that the Final CUF_{en} Analyses were not performed in accordance with the approach used by Entergy in its analysis of the [feedwater] nozzle."[271] The Board criticized NEC for having "both rehashed old arguments (e.g., adequacy of consideration of dissolved oxygen in CUFen analyses and the appropriateness of the heat transfer coefficients) and . . . [for] rais[ing] new arguments concerning technical assumptions and judgments that have not changed since 2007."[272]

NEC's principal argument on appeal is that the Board, in rejecting Contention 2C, misapprehended the technical and scientific issues associated with metal fatigue analysis and therefore reached a faulty conclusion regarding the admissibility of NEC's most recent contention.[273]

NEC asks us first to appoint an independent panel of experts that would review the Board's findings of fact regarding metal fatigue, and then to hold a hearing on Contention 2C.[274] We deny this request. Congress considers the Atomic Safety and Licensing Board to be a "panel of experts,"[275] as do we.[276]

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[268] NEC's Motion to File Contention 2C at 1 (emphasis in original).

[269] Staff Answer to NEC Petition at 4-5, summarizing Declaration of Dr. Joram Hopenfeld in Support of New England Coalition's Motion to File a Timely New or Amended Contention on Entergy's Fatigue Reanalysis (Apr. 22, 2009) (Hopenfeld Declaration I), at unnumbered pp. 5-12, appended as Exhibit A to NEC's Motion to File Contention 2C.

[270] 70 NRC at 48.

[271] *Id.*

[272] *Id.*

[273] NEC Petition at 14-19.

[274] *Id.* at 3, 19.

[275] *See Zion,* ALAB-222, 8 AEC at 235. *Cf.* Atomic Energy Act of 1954, § 191(a), 42 U.S.C. § 2241(a).

[276] *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 466 *(Continued)*

Even assuming that none of the three administrative judges in this proceeding is an expert in the specific subject matter of metal fatigue, this would not disqualify them. In our adjudications, issues may arise about which the presiding judges lack *specific* expertise.[277] NEC is entitled to hearings by experts in law, science and/or engineering, and the three-judge Board here brings substantial legal, engineering, and scientific expertise to the contested matters. The Board is required to consider, probe, and understand the evidence submitted in the proceeding. NEC has not shown, nor do we find, that the Board failed to execute these duties in this case.

We turn now to NEC's contention admissibility arguments. Once Entergy had submitted its final CUF_{en} calculations for the core spray and reactor recirculation outlet nozzles on March 10, 2009, NEC proffered Contention 2C.[278] According to NEC, Entergy had not performed its calculations in accordance with the ASME Code or the specified regulatory guidance. Therefore, according to NEC, Entergy has failed to show that the core spray and reactor recirculation outlet nozzles will not fail during the 20-year period of extended operation because of metal fatigue,[279] nor has Entergy shown that its new calculations and analyses for those nozzles are consistent with the intent of 10 C.F.R. § 54.21.[280] NEC also argues that Entergy has failed to comply with the requirements in LBP-08-25.[281] In making these arguments on appeal, NEC does not challenge Entergy's calculations, but instead questions the scientific judgments underlying those calculations. NEC describes these as "new and erroneous scientific judgments . . . [that] are significantly different than those used in the feedwater nozzle analysis."[282]

NEC's witness, Dr. Hopenfeld, provided two supporting declarations arguing that Entergy's analyses were flawed and insufficiently conservative. Consequently, according to Dr. Hopenfeld, the "analysis does not meet the NRC/ASME guidelines of how the fatigue analysis for plant life extension should be con-

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(2010) (referring to "the full Board [as] including two technical experts"); *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-06-15, 63 NRC 687, 697 (2006) ("As is customary, the Board itself included two judges with technical expertise"); *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-39, 60 NRC 657, 658 (2004) (referring to a "Presiding Officer, assisted by two judges with technical expertise").

[277] Likewise, Article III judges regularly face issues and areas of law with which they are unfamiliar. *See, e.g., Indiana Lumbermens Mutual Insurance Co. v. Reinsurance Results, Inc.,* 513 F.3d 652, 658 (7th Cir.), *cert. denied,* 555 U.S. 884 (2008). And they, like our own administrative judges, use their training, experience, knowledge, and judgment to ask the right questions and reach sound decisions.

[278] *See* text associated with note 268, *supra.*

[279] NEC's Motion to File Contention 2C at 4.

[280] *Id.*

[281] *Id.*

[282] New England Coalition's Reply to NRC Staff and Entergy Oppositions to NEC's Motion to File a Timely New Contention (May 26, 2009), at 3.

ducted."[283] As explained below, his concerns were "primarily with the lack of conservatism in the heat transfer calculations and the use of nonconservative oxygen concentrations in the analysis of the [core spray] and [reactor recirculation outlet] nozzles."[284]

Dr. Hopenfeld acknowledged that the methodology used in Entergy's final CUF_{en} analyses for the core spray and reactor recirculation outlet nozzles was the same as that it had used in its earlier CUF_{en} analysis for the feedwater nozzle.[285] Dr. Hopenfeld, however, believed that the methodology that Entergy used in the CUF_{en} analysis for the feedwater nozzle should have differed from the methodology that Entergy used for the CUF_{en} analysis for the core spray and reactor recirculation outlet nozzles.[286] He claimed that Entergy should have used a different methodology to analyze the latter two types of nozzle because they differ from the feedwater nozzle in "materials, . . . geometries, and . . . environments of stress, temperature, and chemistry."[287] Dr. Hopenfeld concluded, overall, that "[e]ach component must be examined individually" and that "it is incorrect to claim that the approach that was previously used for the determination of heat transfer coefficients and oxygen concentrations may be universally applied across all the variations of specific local conditions."[288]

The Board addressed the admissibility of Contention 2C in LBP-09-9, where it concluded that NEC had failed "to show that the Final CUF_{en} Analyses were not performed in accordance with the approach[ ] used by Entergy in its analysis of the [feedwater] nozzle."[289] The Board also found both that NEC had "for the first time, raised new arguments concerning technical assumptions and judgments that have not changed since 2007" and that, contrary to the Board's explicit direction, NEC had nonetheless "rehashed old arguments" already addressed and resolved in LBP-08-25.[290]

In addition, the Board ruled that NEC had failed to meet the requirements for new contentions under 10 C.F.R. § 2.309(f)(2)(i)-(iii). According to the Board, the assumptions and approach underlying the March 10, 2009 confirmatory CUF_{en}

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[283] Hopenfeld Declaration I at unnumbered p. 2, Answer 4.

[284] *Id.* at unnumbered p. 3, Answer 5.

[285] *Id.* at unnumbered pp. 3-4, Answer 6.

[286] *Id.* at unnumbered p. 4, Answer 7. *See also* Declaration of Dr. Joram Hopenfeld in Support of New England Coalition's Reply to NRC Staff and Entergy Oppositions to NEC's Motion to File a Timely New Contention at 2, 13-14 (May 26, 2009) (Hopenfeld Declaration II), attached to New England Coalition's Reply to NRC Staff and Entergy Oppositions to NEC's Motion to File a Timely New Contention (May 26, 2009).

[287] NEC Petition at 15-16.

[288] Hopenfeld Declaration I at unnumbered p. 4, Answer 7.

[289] LBP-09-9, 70 NRC at 48.

[290] *Id.*

analyses for the core spray and reactor recirculation outlet nozzles that NEC was seeking to challenge in Contention 2C were the same as those Entergy had used in its 2007 and 2008 analyses.[291] The Board observed that NEC had been given the opportunity to litigate those 2007 and 2008 analyses in the 2008 evidentiary hearing, and that "the Board had rejected each of NEC's challenges (with the exception of the challenge to the use of the simplified Green's function methodology)."[292]

In its petition for review, NEC claims that the Board's contention admissibility decision must be reversed because NEC's "proposed new contention argues and provides expert testimony to the effect that the standards and criteria of regulation and guidance are not met [and] that Entergy's assumptions and input selections are technically indefensible; hence any assertion that CUF_{en}s are less than unity [i.e., 1.0] cannot be validly supported by the analyses."[293] NEC's appellate argument relates to the Board's two instructions to Entergy in LBP-08-25. The Board instructed Entergy to calculate the CUF_{en}s for the core spray and reactor recirculation outlet nozzles in accordance with the approach used to perform the confirmatory CUF_{en} analysis for the feedwater nozzle — that is, the new calculations must "contain no significantly different scientific or technical judgments" from those used in the feedwater nozzle analysis.[294] The second instruction directed Entergy to calculate the CUF_{en}s "for the [core spray and reactor recirculation outlet] nozzles, in accordance with the ASME Code, NUREG-6583, [NUREG]-5704, and all other regulatory guidance."[295]

NEC asserts on appeal that Entergy failed to follow either instruction. According to NEC, Entergy applied the feedwater nozzle CUF_{en} methodology to totally different situations involving the core spray and reactor recirculation outlet nozzles — "different materials, different geometries, and different environments of stress, temperature, and chemistry."[296] NEC asserts that Entergy, in so doing, used "significantly different scientific or technical judgments" in contravention of the Board's first instruction.[297] NEC interprets the Board's requirement broadly to mean Entergy was required to "use the same considerations in weighing each element for the individual application and not simply weigh each element as you did the last time."[298]

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[291] *Id.* at 48-49.

[292] *Id.* at 49.

[293] NEC Petition at 16.

[294] LBP-08-25, 68 NRC at 832.

[295] *Id.* at 831.

[296] NEC Petition at 16 (emphases omitted).

[297] *Id.* at 15-16.

[298] *Id.* at 16.

Moreover, according to NEC, Entergy also failed to comply with the second instruction. NEC and its witness, Dr. Hopenfeld, go into great detail to explain how Entergy's scientific or technical judgments are incompatible with the ASME Code and Commission guidance documents.

Finally, NEC addresses the Board's warning that any new contention must not "rehash or renew any technical challenges that have already been raised and resolved in this proceeding (e.g., dissolved oxygen, heat transfer coefficients, etc.), but rather must specifically state how the new analyses are not consistent with the legal requirement and the calculations performed for the feedwater nozzle."[299] NEC argues that, while Entergy's "'basic approach' [to the analyses] remains the same," Entergy has failed "to appropriately adjust inputs according to changing circumstances."[300] Consequently, according to NEC, Entergy's latest analyses are (to use the Board's words) "not consistent with the legal requirement and the calculations performed for the feedwater nozzle."[301]

As we explained *supra,* a successful challenge to a contention admissibility ruling must demonstrate that the ruling either constitutes "clear error" or reflects an "abuse of discretion."[302] NEC has not made this demonstration. We agree with the Board that NEC has simply rehashed old arguments in Contention 2C and that, to the extent its arguments supporting Contention 2C differ from those old arguments, NEC was tardy in presenting them.[303] Moreover, NEC has not shown good cause for their late presentation.[304]

The scientific and technical judgments underlying Entergy's calculations regarding dissolved or depleted oxygen and heat transfer coefficients were at issue prior to the Board's issuance of LBP-08-25, and NEC had ample opportunity at that time to draw its current distinctions between the feedwater nozzle and the other two types of nozzle and to make its arguments regarding dissolved or depleted oxygen and heat transfer coefficients.

To a considerable extent, NEC took advantage of that opportunity, presenting to the Board in 2007 and 2008 many of the same arguments that it later offered in support of Contention 2C in 2009. For instance, NEC's argument regarding dissolved or depleted oxygen is identical to the one which the Board had rejected

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[299] *Id.* (quoting LBP-08-25, 68 NRC at 832 n.95).

[300] *Id.* at 17.

[301] *Id.* at 16 (quoting LBP-08-25, 68 NRC at 832 n.95).

[302] *Levy County,* CLI-10-2, 71 NRC at 29 & n.4.

[303] LBP-09-9, 70 NRC at 49 ("NEC's challenges to the assumptions made by Entergy are, in essence, challenges that either were made previously and already rejected by the Board, or were not made before and are now not timely").

[304] "Good cause" is the factor given the greatest weight when ruling on motions for leave to submit late-filed contentions. *See* 10 C.F.R. § 2.309(c)(1)(i); *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-8, 67 NRC 193, 197 & n.26 (2008).

in LBP-08-25[305] and to which the Board specifically referred when instructing NEC not to rehash old arguments.[306] Likewise, NEC's Contention 2C arguments regarding heat transfer coefficients are mere reiterations of ones made at the hearing[307] and already rejected by the Board in LBP-08-25.[308]

Finally, NEC had the opportunity in its petition for review to challenge the appropriateness of the limitations that the Board had imposed on its final contention — that is, no rehashing of old issues and no raising of new issues that could have been presented earlier. NEC did not avail itself of this opportunity. Rather, it argued that the Board, by declining to admit Contention 2C for litigation, improperly overlooked Entergy's asserted failure to follow the Board's directives regarding its analysis of record for the core spray and reactor recirculation outlet nozzles — specifically, the Board's instructions that the calculations must be "in accordance with the ASME Code, NUREG-6583 and -5704, and all other regulatory guidance."[309]

For all the reasons set forth above, we reject NEC's arguments that Contention 2C should have been admitted for litigation.

VI. CONCLUSION

For the reasons set forth above, we

(i) *deny* as moot NEC's motion to stay the proceeding,

(ii) *deny* NEC's motion to suspend the proceeding,

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[305] LBP-08-25, 68 NRC at 807-09.

[306] *Id.* at 832 n.95. *Compare, e.g.,* Hopenfeld Declaration I at unnumbered pp. 3 (Answer 5), 4 (Answer 7), 10-11 (Answers 18, 22-23) *with* Tr. 959-1013 (July 22, 2008). Dr. Hopenfeld likewise had raised more general arguments regarding oxygen content. *See* Sixth Declaration of Dr. Joram Hopenfeld (Aug. 31, 2007), at 12, appended as Attachment 2 to New England Coalition, Inc.'s (NEC) Motion to File a Timely New or Amended Contention (Sept. 4, 2007); Dr. Joram Hopenfeld's "Review of Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc. ('Entergy') Analyses of the Effects of Reactor Water Environment on Fatigue Life of Risk-significant Components During the Period of Extended Operation" (Apr. 21, 2008), at 16-17 (ADAMS Accession No. ML081280294).

[307] For example, *compare* Hopenfeld Declaration I at unnumbered pp. 8-9 (Answer 14) *with* Tr. 1108-09 (July 22, 2008) (regarding whether it is inappropriate to use a single heat transfer coefficient for natural convection flow). Also, regarding heat transfer, *compare* Hopenfeld Declaration I at unnumbered p. 4 (Answer 7) and unnumbered p. 5 (Answer 9) *with* Sixth Declaration of Dr. Joram Hopenfeld, *supra* note 306, at 10-11, *and with* Dr. Joram Hopenfeld's "Review," *supra* note 306, at 12-15, *and with* Tr. 1118-22 (July 22, 2008). For pre-Contention 2C arguments regarding heat transfer coefficients, *see generally* Tr. 1096-1128 (July 22, 2008).

[308] LBP-08-25, 68 NRC at 815-16.

[309] NEC Petition for Review at 15 (quoting LBP-08-25). *See generally* NEC Petition for Review at 14-19.

(iii) *grant,* in part, the Staff's petition for review of LBP-08-25,

(iv) *grant* New York's petition for leave to submit brief *amici curiae,*

(v) *reverse* the Board's rulings in LBP-08-25 regarding NEC's Contentions 2A and 2B insofar as those rulings relate to the calculation of the CUF_{en} for the core spray and reactor recirculation outlet nozzle,

(vi) *grant,* in part, NEC's petition for review of LBP-09-9, and

(vii) *remand* the proceeding for the limited purpose of giving NEC the opportunity to submit a revised Contention 2.

IT IS SO ORDERED.[310]

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of July 2010.

[310] Commissioner Apostolakis did not participate in this matter.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of **Docket No. 30-36974-ML**
(Materials License Application)

PA'INA HAWAII, LLC **July 8, 2010**

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).

LICENSING BOARD, AUTHORITY

Under the Commission's adjudicatory scheme, the licensing board's principal role 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

The Commission refrains from exercising its authority to make *de novo* findings of fact in situations where a Licensing Board has issued a plausible decision that rests on carefully rendered findings of fact. While the Commission has discretion to review all underlying factual issues *de novo,* it is disinclined to do so where a Board has weighed arguments presented by experts and rendered reasonable,

record-based factual findings. The Commission's standard of "clear error" for overturning a Board's factual findings is quite high. The Commission defers to a board's factual findings, correcting only "clearly erroneous" findings — that is, findings not even plausible in light of the record viewed in its entirety — where it has strong reason to believe that a board has overlooked or misunderstood important evidence. The Commission will not lightly reverse its boards' factual determinations, and will not overturn a licensing board's findings simply because it might have reached a different result.

LICENSING BOARD: CONCLUSIONS OF LAW, STANDARD OF REVIEW

In contrast to findings of fact, for conclusions of law, the Commission's 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.

LICENSING BOARD, AUTHORITY

The Commission's boards have the authority to regulate hearing procedure, and decisions on evidentiary questions fall within that authority. A licensing board normally has considerable discretion in making evidentiary rulings. The Commission applies an abuse of discretion standard to its review of decisions on evidentiary questions.

NATIONAL ENVIRONMENTAL POLICY ACT

National Environmental Policy Act § 102(2)(C) requires federal agencies, "to the fullest extent possible," to include a detailed statement on five listed items "in every recommendation or report on proposals for . . . major Federal actions significantly affecting the quality of the human environment." The five items are: "(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented."

NATIONAL ENVIRONMENTAL POLICY ACT: CONSIDERATION OF ALTERNATIVES, "HARD LOOK" REQUIREMENT

The National Environmental Policy Act requires a hard look at environmental effects; general statements about "possible" effects and "some risk" do not constitute a "hard look" absent a justification regarding why more definitive information could not be provided. A rule of reason applies to the assessment of the adequacy of a National Environmental Policy Act analysis. This rule of reason is implicit in the Act's requirement that an agency consider reasonable alternatives to a proposed action.

NATIONAL ENVIRONMENTAL POLICY ACT: CONSIDERATION OF ALTERNATIVES — ENVIRONMENTAL ASSESSMENT AND ENVIRONMENTAL IMPACT STATEMENT, COMPARISON

The National Environmental Policy Act twice refers to the consideration of "alternatives." In addition to the "alternatives" language in section 102(2)(C)(iii), section 102(2)(E) of the Act requires federal agencies to "study, develop, and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." This section 102(E) "alternatives provision" applies both when an agency prepares an environmental impact statement and when an agency prepares an environmental assessment. In either case, the provision requires the agency to give "full and meaningful consideration to all reasonable alternatives." But the obligation to consider alternatives is a lesser one under an environmental assessment than under an environmental impact statement. When preparing an environmental impact statement, the agency must "[r]igorously explore and objectively evaluate all reasonable alternatives." In contrast, when preparing an environmental assessment, the agency only must "include a brief discussion of reasonable alternatives." Even when a proposed action does not require preparation of an environmental impact statement, the consideration of alternatives remains critical to the Act's goals. In short, whether an agency is preparing an environmental assessment or an environmental impact statement, the alternatives that should be considered will be the same — it is only in the depth of the consideration and in the level of detail provided in the corresponding environmental documents that an environmental assessment and an environmental impact statement will differ.

NATIONAL ENVIRONMENTAL POLICY ACT: CATEGORICAL EXCLUSION

Consistent with the Council on Environmental Quality's regulations and the

definition of "categorical exclusion," the Commission has by regulation designated certain actions as "categorically excluded" from the requirement to prepare an environmental assessment or an environmental impact statement. Once a categorical exclusion has been established, the Staff need not prepare an environmental assessment or an environmental impact statement, absent the existence of special circumstances.

NATIONAL ENVIRONMENTAL POLICY ACT: ENVIRONMENTAL ASSESSMENT

An environmental assessment for a proposed action must identify the action and include (1) a brief discussion of: (i) the need for the proposed action; (ii) alternatives as required by section 102(2)(E) of the National Environmental Policy Act; (iii) the environmental impacts of the proposed action and alternatives as appropriate; and (2) a list of agencies and persons consulted, and identification of sources used.

NATIONAL ENVIRONMENTAL POLICY ACT: CONSIDERATION OF ALTERNATIVES

The applicant's stated purpose defines the correlating range of alternatives that should be considered: while different from the specific proposal, the alternatives that should be considered must still accomplish the underlying purpose of the proposed action. The adequacy of the alternatives analysis is judged on the substance of the alternatives rather than the sheer number of alternatives examined. So long as all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated, the regulatory requirement is satisfied. The regulation does not impose a numerical floor on alternatives to be considered. The consideration of alternatives is bounded by a notion of feasibility. Alternatives that do not advance the purpose of the project will not be considered reasonable or appropriate.

NATIONAL ENVIRONMENTAL POLICY ACT: CONSIDERATION OF ALTERNATIVES

While the Commission does accord "substantial weight" to an applicant's preferences, this does not equate to complete deference to those preferences. Such deference would, in many cases, preclude the consideration of reasonable alternatives that the National Environmental Policy Act requires. While it is true that the project goal is to be determined by the applicant, not the agency, courts

will not allow an agency to define the objectives so narrowly as to preclude a reasonable consideration of alternatives.

ENVIRONMENTAL POLICY ACT: CONSIDERATION OF ALTERNATIVES

The Commission does not find that alternative sites always must be analyzed in an environmental assessment. Analysis of alternative sites is appropriate only when such sites are determined to be reasonable alternatives. In this particular instance, it was appropriate for the Board to require the Staff to include a brief analysis — at the level of detail appropriate for an environmental assessment — of the impacts of siting the irradiator at a different location. Consideration of alternative sites is not universally required in the preparation of an environmental assessment.

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).

ATOMIC ENERGY ACT, NATIONAL ENVIRONMENTAL POLICY ACT: SAFETY AND ENVIRONMENTAL REVIEWS

The Atomic Energy Act and the National Environmental Policy Act contemplate *separate* NRC reviews of proposed licensing actions. While the Commission's safety and environmental reviews may consider overlapping concerns, they are separate and independent, with differing objectives and scope, governed by different statutes with different requirements. Consequently, the fact that the Board dismissed a safety-related transportation contention is not dispositive of the merits of an environmentally based transportation contention.

RULES OF PROCEDURE: SUBPART L

Once a hearing is granted under Subpart L, the Commission's rules require an informal hearing on the merits, except in the limited circumstances described in 10 C.F.R. § 2.1206. Prior to 2004, the Commission's rules of practice prescribed that hearings held under Subpart L — as this hearing would have been — were to be informal "paper hearings," with oral presentations permitted only upon a determination by the presiding officer that such presentations were necessary to create an adequate record for decision. The Commission's 2004 changes to the

rules, however, expressly did away with this format in its entirety, shifting the focus of Subpart L to oral hearings. Although the Board has broad authority to regulate the conduct of the proceeding before it, it is beyond the Board's discretion to abrogate the Commission's oral hearing rule entirely, and proceed as though the prior rules were still in effect.

MEMORANDUM AND ORDER

This proceeding concerns the application of Pa'ina Hawaii, LLC (Pa'ina) for a license to possess and use byproduct material in an industrial irradiator at the site of the Honolulu International Airport. The Licensing Board has issued its Initial Decision on the merits of three environmental contentions filed by Concerned Citizens of Honolulu (Concerned Citizens), ruling in part in Concerned Citizens' favor.[1] Pa'ina[2] and the NRC Staff[3] petitioned for review of the Board's decision. Concerned Citizens opposed both Pa'ina's petition[4] and the Staff's petition.[5] The Staff responded in support of Pa'ina's petition,[6] and also replied to Concerned Citizens' opposition to the Staff's petition.[7] For the reasons provided below, we take review of the Board's decision. We admit Amended Contention 3 (the admissibility of which the Board left undecided) and remand it to the Board for additional consideration. We affirm the Board's decision in connection with

[1] Initial Decision (Ruling on Concerned Citizens of Honolulu Amended Environmental Contentions #3, #4, and #5) (Aug. 27, 2009) (unpublished) (Initial Decision). The Initial Decision is one that appears to be appropriate for publication in NUREG-0750, the Nuclear Regulatory Commission Issuances. *See generally* Internal Commission Procedures (Aug. 4, 2006), Appendix 9.

[2] Applicant Pa'ina Hawaii, LLC's Petition for Review of the August 27, 2009[,] Initial Decision of the Atomic Safety and Licensing Board (Oct. 6, 2009) (Pa'ina Petition).

[3] NRC Staff's Petition for Review of Board's Initial Decision (Oct. 14, 2009) (Staff Petition), with attached Affidavit of Earl P. Easton (Sept. 11, 2009) (Easton Affidavit).

[4] Intervenor Concerned Citizens of Honolulu's Opposition to Applicant Pa'ina Hawaii, LLC's Petition for Review of the August 27, 2009[,] Initial Decision of the Atomic Safety and Licensing Board (Oct. 19, 2009) (Concerned Citizens Opposition to Pa'ina Petition).

[5] Intervenor Concerned Citizens of Honolulu's Opposition to NRC Staff's Petition for Review of Board's Initial Decision (Nov. 9, 2009) (Concerned Citizens Opposition to Staff Petition).

[6] NRC Staff's Response to Licensee Pa'ina Hawaii, LLC's Petition for Review of Board's Initial Decision (Oct. 19, 2009).

[7] NRC Staff's Reply to Intervenor Concerned Citizens of Honolulu's Opposition to Staff's Petition for Review of Board's Initial Decision (Nov. 16, 2009) (Staff Reply to Concerned Citizens Opposition). Pa'ina Hawaii declined to file a reply to Concerned Citizens' opposition to its petition, *see* Letter from Fred Paul Benco, Esq., to Office of the Secretary, U.S. Nuclear Regulatory Commission, Re: Docket No. 030-36974, ASLBP No. 06-843-01-ML[,] Non-Filing of Reply in Support [o]f Petition [f]or Review (Oct. 26, 2009).

Contention 4. We affirm the Board's determination to require an additional written comment period and deny Pa'ina's request to reinstate the categorical exclusion for its proposed irradiator. We also direct the Board to hold a hearing prior to its final decision on the merits of the remaining contentions.

I. BACKGROUND

This proceeding began in 2005, shortly after Pa'ina filed an application to possess and use cobalt-60 in a commercial pool-type industrial irradiator near the Honolulu International Airport in Honolulu, Hawaii. The Staff issued the license in 2007.[8] Pa'ina's intention is to use the facility to irradiate fresh fruit and vegetables, cosmetics, and pharmaceutical products en route to the United States mainland from Hawaii; Pa'ina also intends to use the irradiator for research and development projects and will irradiate other materials with NRC approval on a case-by-case basis.[9]

A. Procedural Synopsis

This proceeding has been lengthy and procedurally complex. Concerned Citizens initially submitted two National Environmental Policy Act (NEPA) contentions and twelve safety contentions.[10] The safety contentions presented issues involving sensitive information not publicly available that required a protective order and other procedures, which the environmental contentions did not. The Board therefore bifurcated its initial consideration of the environmental and safety portions of the proceeding.[11] The Board admitted the first of Concerned Citizens' environmental contentions in its entirety, and admitted part of the second environmental contention.[12] The Board subsequently ruled on Concerned Citizens' safety contentions, admitting three of the remaining ten safety contentions for hearing.[13]

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[8] *See* Materials License 53-29296-01 (Aug. 17, 2007) (ADAMS Accession No. ML072320269). To date, however, Pa'ina has not constructed the irradiator.

[9] *See* Notice of License Request for Pa'ina Hawaii, LLC, Irradiator in Honolulu, HI and Opportunity [t]o Request a Hearing, 70 Fed. Reg. 44,396 (Aug. 2, 2005) (Notice of License Request); Application for Material License for Pa'ina Hawaii, Rev. 00 (June 23, 2005) (ADAMS Accession No. ML052060372) (License Application).

[10] Request for Hearing by Concerned Citizens of Honolulu (Oct. 3, 2005). Concerned Citizens soon withdrew two safety contentions. *See* Petitioner's Reply in Support of Its Request for Hearing (Dec. 2, 2005) at 15, 22.

[11] LBP-06-4, 63 NRC 99, 102 (2006).

[12] LBP-06-4, 63 NRC at 115.

[13] LBP-06-12, 63 NRC 403, 407, 423 (2006).

Concerned Citizens and the Staff settled the two admitted environmental contentions by settlement stipulation.[14] Under this settlement stipulation, the Staff agreed to prepare an environmental assessment (EA) for the proposed irradiator to determine whether the Staff should produce an environmental impact statement or a finding of no significant impact. The Staff also agreed to provide a public comment period (with at least one public meeting in Honolulu, Hawaii) on a draft finding prior to making a final finding of no significant impact, in the event the Staff determined an environmental impact statement was not required. The settlement stipulation also resolved the admitted environmental contentions and preserved Concerned Citizens' right to file new contentions on the adequacy of the NEPA documents.[15] The Board accepted the settlement stipulation and dismissed the contentions.[16]

Concerned Citizens submitted two new safety contentions and three new environmental contentions[17] after the publication of the Staff's draft EA[18] and associated draft topical report[19] and the February 1, 2007, public meeting. Concerned Citizens also filed comments on the draft EA and draft finding of no significant impact.[20] The Staff considered the environmental impacts associated with potential terrorist activities in an appendix B to the draft EA, issued in June 2007.[21] The Staff issued its final topical report[22] and its final EA (including a

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[14] NRC Staff and Concerned Citizens of Honolulu Joint Motion to Dismiss Environmental Contentions (Mar. 20, 2006), and attached Joint Stipulation and Order Regarding Resolution of Concerned Citizens' Environmental Contentions (Settlement Stipulation).

[15] *Id.* at 2.

[16] Order (Confirming Oral Ruling Granting Motion to Dismiss Contentions) (Apr. 27, 2006) (unpublished).

[17] Intervenor Concerned Citizens of Honolulu's Contentions Re: Draft Environmental Assessment and Draft Topical Report (Feb. 9, 2007).

[18] *See* Notice of Availability of Draft Environmental Assessment and Finding of No Significant Impact for Proposed Pa'ina Hawaii, LLC Irradiator in Honolulu, Hawaii, 71 Fed. Reg. 78,231 (Dec. 28, 2006).

[19] Draft Topical Report on the Effects of Potential Natural Phenomena and Aviation Accidents at the Proposed Pa'ina Hawaii, LLC, Irradiator Facility (Dec. 2006) (ADAMS Accession No. ML063560344).

[20] Letter from David L. Henkin, Staff Attorney, Earthjustice, to NRC (Feb. 8, 2007) (ADAMS Accession No. ML070470615).

[21] *See* Notice of Availability — Consideration of Terrorist Acts on the Proposed Pa'ina Hawaii, LLC Irradiator in Honolulu, HI, 72 Fed. Reg. 31,866 (June 8, 2007).

[22] Final Topical Report on the Effects of Potential Aviation Accidents and Natural Phenomena at the Proposed Pa'ina Hawaii, LLC, Irradiator Facility (May 2007) (ADAMS Accession No. ML071280833).

final appendix B) and final finding of no significant impact in August 2007.[23] In response, Concerned Citizens sought to amend its three environmental contentions.[24]

The Board admitted two of the amended contentions (Contention 3 and Contention 4) and rejected the third (Contention 5).[25] In Contention 3, Concerned Citizens asserted that the Staff, in the final EA, failed to take a hard look at the potential environmental impacts of the proposed irradiator.[26] Contention 3 claimed five "major deficiencies" — omissions — in the Staff's final EA:

1. The Staff failed to respond in the final EA to the Concerned Citizens' ten detailed comments on the deficiencies in the draft EA.[27]

2. The Staff provided insufficient evidence and analysis in the final EA regarding the potential effects of the proposed irradiator, pointing in particular to a list of twenty-five examples of asserted "deficits," including the "failure to provide any calculations, analysis, or data substantiating [the Staff's] generalized conclusory statements about the proposed irradiator's occupational dose limit, off-site consequences, impact on transportation, and influence on tourism."[28]

3. The Staff provided only general statements about possible risks and thus "failed to consider adequately the impact of natural disasters and aviation accidents on the proposed irradiator, as well as transportation accidents involving the irradiator's cobalt sources."[29]

4. The Staff, in its final EA, "failed to provide a serious, scientifically-based analysis of the risk of a terrorist attack, disclose data underlying its terrorism analysis, address the significance of the identified effects, and consider all reasonably foreseeable impacts."[30]

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[23] *See* Notice of Availability of Final Environmental Assessment and Finding of No Significant Impact for Proposed Pa'ina Hawaii, LLC Irradiator in Honolulu, HI, 72 Fed. Reg. 46,249 (Aug. 17, 2007).

[24] Intervenor Concerned Citizens of Honolulu's Amended Environmental Contentions #3 through #5 (Sept. 4, 2007) (2007 Amended Environmental Contentions).

[25] Memorandum and Order (Ruling on the Admissibility of Intervenor's Amended Environmental Contentions) (Dec. 21, 2007), at 4 (unpublished) (December 2007 Order).

[26] 2007 Amended Environmental Contentions at 6.

[27] *Id.* at 7-8.

[28] December 2007 Order at 13-14, citing 2007 Amended Environmental Contentions at 8-14. The Board numbered the twenty-five examples of "deficiencies" in the order set out by Concerned Citizens in its pleading. December 2007 Order at 13-14.

[29] December 2007 Order at 16, citing 2007 Amended Environmental Contentions at 14-18.

[30] December 2007 Order at 19, citing 2007 Amended Environmental Contentions at 18-29.

5. The Staff failed to consider the health effects of the consumption of irradiated fruit and vegetables in the final EA.[31]

The Board admitted four of these five "major deficiencies" as part of Contention 3, specifically: deficiency number 1,[32] number 2 in part (limited to examples 1-10, 24, and 25),[33] number 3,[34] and number 5.[35] The Board deferred ruling on deficiency number 4,[36] pending our decision on a similar NEPA-terrorism issue in another proceeding.[37] The Board subsequently admitted deficiency number 4 "to the extent it alleges that the Staff failed 'to disclose data underlying [its] terrorism analysis' of the proposed irradiator in the final EA and its Appendices and thereby failed to meet the NEPA-mandated 'hard look' standard."[38] Deficiency number 5 was dropped after we decided, *sua sponte,* that NEPA does not require the NRC to assess the potential health effects of consuming irradiated food.[39]

In Contention 4, Concerned Citizens argued that the Staff, in the final EA, failed to consider reasonable alternative technologies and sites.[40] Specifically, the contention claimed that "the Staff failed to quantify the relative costs and benefits of the two pest control technologies mentioned in the final EA and omitted any consideration of the electron beam irradiator technology proposed in the Concerned Citizens' comments on the draft EA,"[41] thereby failing to provide the rigorous and objective evaluation required, Concerned Citizens argued, by NEPA.[42] The contention also claimed that the Staff failed to satisfy NEPA because the final EA did not include an analysis of alternative sites that would avoid or minimize the environmental risks from weather, earthquake, and terrorist acts.[43]

The Board, in a series of orders, dismissed all of the safety contentions,

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[31] 2007 Amended Environmental Contentions at 29-30.

[32] December 2007 Order at 11.

[33] *Id.* at 14, 16. *See also* Order (Scheduling Order) (July 17, 2008) at 3-4 n.9 (unpublished) (July 2008 Scheduling Order).

[34] *Id.* at 17.

[35] *Id.* at 21.

[36] *Id.* at 19-20.

[37] *See Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1 (2008).

[38] Memorandum and Order (Ruling on Admissibility of Intervenor's Terrorism-Related Challenges) (Mar. 4, 2008) at 5 (unpublished).

[39] *See* CLI-08-4, 67 NRC 171 (2008); CLI-08-16, 68 NRC 221, 222-23, 230 (2008).

[40] 2007 Amended Environmental Contentions at 30-31. *See also* December 2007 Order at 4.

[41] *Id.* at 24-25 (citing 2007 Amended Environmental Contentions at 31-32).

[42] December 2007 Order at 28-29, 30, citing 2007 Amended Environmental contentions at 32.

[43] 2007 Amended Environmental Contentions at 33-34.

including certain added and amended safety contentions.[44] In July 2008, at the Board's request, the parties filed initial and rebuttal written statements of position, written testimony, affidavits, and exhibits, and proposed questions for the Board to consider asking during the then-anticipated evidentiary hearing.[45] Shortly thereafter, Pa'ina filed a motion to reinstate the "categorical exclusion"[46] status of the proposed action. The Board denied Pa'ina's motion.[47]

Some months after the Board first directed the parties to file their statements of position, testimony, affidavits, and exhibits, the Board denied a Concerned Citizens motion to strike certain Staff and Pa'ina testimony and directed Concerned Citizens to file "a full factual and substantive written statement of position (including written testimony with supporting affidavits and exhibits in support of its position) rebutting and responding to the presentations of the Staff and [Pa'ina]," with responses from the Staff and Pa'ina permitted thereafter.[48]

The Staff response to Concerned Citizens' supplemental statement of position prompted Concerned Citizens to propose an amendment to the transportation

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[44] *See* Memorandum and Order (Ruling on Admissibility of Two Amended Contentions (June 22, 2006) (unpublished); Memorandum and Order (Dismissing Outstanding Safety Contentions and Permitting Submission of New Safety Contentions) (Apr. 2, 2008) (unpublished); Memorandum and Order (Ruling on Admissibility of Amended Safety Contention 7) (June 19, 2008) (unpublished).

[45] July 2008 Scheduling Order at 4-6. *See also* Intervenor Concerned Citizens of Honolulu's Initial Written Statement of Position (Aug. 26, 2008); Licensee Pa'ina Hawaii, LLC's Trial Brief on the Law (Aug. 26, 2008) (Pa'ina's Initial Statement of Position); NRC Staff's Initial Statement of Position on Amended Environmental Contentions 3 and 4 (Aug. 26, 2008); Intervenor Concerned Citizens of Honolulu's Rebuttal to Pa'ina Hawaii, LLC's Statement of Position (Sept. 15, 2008); Licensee Pa'ina Hawaii, LLC's Rebuttal Memorandum in Opposition to Intervenor Concerned Citizens of Honolulu's August 26, 2008[,] Initial Written Statement of Position and in Response to NRC Staff's Initial Statement of Position and Initial Written Testimony (Sept. 15, 2008); NRC Staff's Rebuttal Statement of Position and Testimony (Sept. 15, 2008); Intervenor Concerned Citizens of Honolulu's Rebuttal to NRC Staff's Statement of Position (Sept. 16, 2008).

[46] Licensee Pa'ina Hawaii, LLC's Motion: To Reinstate "Categorical Exclusion" Status for Pa'ina Hawaii, LLC's Irradiator (Aug. 25, 2008) (Pa'ina Categorical Exclusion Motion).

[47] Order (Ruling on Pa'ina Hawaii, LLC Motion to Reinstate "Categorical Exclusion") (Oct. 15, 2008) (unpublished) (Categorical Exclusion Order). Among other things, the Board observed that, once the Staff prepared the EA, the issue of whether "categorical exclusion" status under NEPA applied to the proposed action became moot. *Id.* at 4.

[48] Order (Ruling on Intervenor's Motion to Strike Testimony, Releasing Previously Reserved Hearing Dates, and Directing Parties to Submit Scheduling Information for Hearing) (Dec. 4, 2008) at 2 (unpublished) (emphasis omitted). *See also* Intervenor Concerned Citizens of Honolulu's Supplemental Statement of Position (Feb. 3, 2009) (Concerned Citizens' Supplemental Statement of Position); Licensee Pa'ina Hawaii, LLC's Response to Intervenor Concerned Citizens of Honolulu's Supplemental Statement of Position (Mar. 4, 2009) (Pa'ina March 2009 Response); NRC Staff's Response to Intervenor's Supplemental Statement of Position (Mar. 5, 2009) (Staff Response to Concerned Citizens' Supplemental Statement of Position) and Testimony of Earl Easton (Mar. 5, 2009) (Prefiled Staff Exh. 70) (2009 Easton Testimony).

accident portion of Contention 3.[49] Concerned Citizens' proposed amendment complained that "the Staff, for the first time, presented an analysis of the likelihood that 'radiation would be released as the result of an accident occurring during the transport of cobalt-60 to Pa'ina's irradiator,'"[50] in an analysis prepared by a previously uninvolved NRC Staff member long after the closure of the comment period for the draft EA and the issuance of the Staff's final EA.[51] According to Concerned Citizens, this did not satisfy the Staff's NEPA "hard look" obligation.[52] Concerned Citizens argued that the new analysis should have been circulated for public comment.[53] Moreover, Concerned Citizens asserted a number of inadequacies in the analysis.[54] Concerned Citizens argued additionally that the Staff analysis improperly relied on NUREG-0170[55] to support the conclusion that impacts of transportation accidents would be insignificant.[56]

A month later, the Board stated that it would address the proposed Contention 3 amendment in its decision on the merits of the admitted environmental contentions. At this time, the Board also concluded, without further discussion, that it would not convene an oral hearing pursuant to 10 C.F.R. § 2.1207.[57] The Board issued its Initial Decision just under two months later, without assessing the admissibility of Concerned Citizens' proposed amendment to Contention 3.

B. The Board's Initial Decision

As an initial matter, Concerned Citizens took issue, generally, with the Staff's

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[49] Intervenor Concerned Citizens of Honolulu's Amendment to Environmental Contention 3 Re: Transportation Accidents (Apr. 7, 2009) (2009 Amended Contention 3).

[50] 2009 Amended Contention 3 at 5, 9.

[51] *See* 2009 Easton Testimony at Q.2, A.2.

[52] 2009 Amended Contention 3 at 5.

[53] *Id.* at 6-7.

[54] Concerned Citizens asserted that: the analysis lacked any quantification of the effects of a transportation accident (*id.* at 10-11); the analysis did not provide a "hard look" because it contained "[n]umerous methodological flaws and factual inaccuracies" (*id.* at 11-12); the geographical scope of the analysis was too narrow and should have included the entire route from supplier to Pa'ina (*id.* at 12-13); and the analysis provided no scientific basis supporting the reasonableness of the assumption that there would be "proper recovery" of any dispersed radioactive material (*id.* at 13).

[55] Final Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes (Dec. 1977) (ADAMS Accession Nos. ML022590265, ML022590348, & ML022590370).

[56] 2009 Amended Contention 3 at 14-16. The Staff and Pa'ina both opposed Concerned Citizens' proposed amendment of Contention 3. *See* Licensee Pa'ina Hawaii, LLC's Opposition to Intervenor's Amendment to Environmental Contention Re: Transportation Accidents . . . . (May 1, 2009); NRC Staff's Response in Opposition to Intervenor's Amendment to Environmental Contention 3 Re: Transportation Accidents (May 1, 2009) (Staff Opposition to Amended Contention 3).

[57] Order (Notice Regarding Hearing) (June 5, 2009) (unpublished) (stating the Board's conclusion that "no hearing will be necessary").

use of evidentiary submissions during the adjudicatory process to augment and clarify the Staff's EA. The Board rejected this challenge, finding that "there is no per se regulatory bar that precludes the Staff from using the hearing process to clarify the administrative record" supporting its final EA, "and that record, along with any adjudicatory decision, becomes, in effect, part of the final environmental document."[58]

1. Contention 3

The Board separately considered each of the many components of Contention 3. With respect to Concerned Citizens' complaint that the Staff did not respond to specified comments on the draft EA (deficiency number 1), the Board considered whether the Staff provided adequate responses in the final EA and in the administrative record. The Board found that the Staff adequately addressed eight of the nine comments.[59] The Board found that the ninth comment, regarding the failure of the Staff "to examine accidents involving transportation of [cobalt]-60 sources to and from the proposed irradiator,"[60] appropriately was considered with the transportation issue raised elsewhere in the contention (that is, as part of deficiency number 3).

In connection with Concerned Citizens' argument that the Staff's EA contains insufficient evidence and analysis on the potential impacts of the irradiator to satisfy the requirements of NEPA (deficiency number 2), the Board examined each of the twelve admitted claims in turn. The Board found that the Staff's analysis was sufficient for all but one of the cited claims.[61] The Board found that the remaining claim — that the final EA "contains insufficient evidence and analysis to substantiate its claim that [t]ransportation impacts from normal operations would be small"[62] — appropriately was considered with the Contention 3 transportation issues.

As to Concerned Citizens' argument that the Staff's assessment of the potential consequences of natural disasters, aviation accidents, and transportation of radioactive source material failed to satisfy NEPA's "hard look" requirement (deficiency number 3), the Board examined the record associated with nine specific instances where Concerned Citizens argued the assessment was insufficient.

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[58] Initial Decision at 18. *See generally Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 526 & n.87 (2008); *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 89 (1998); *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 53 (2001).

[59] *See* Initial Decision at 20-29 (citing 2007 Amended Environmental Contentions at 7).

[60] *See* Initial Decision at 29 (citing 2007 Amended Environmental Contentions at 7-8).

[61] *See* Initial Decision at 30-40 (citing 2007 Amended Environmental Contentions at 8-11).

[62] *See* Initial Decision at 33 (citing 2007 Amended Environmental Contentions at 9).

For eight of these, the Board concluded that the Staff provided an adequate assessment, including responding to comments.[63]

For the ninth instance in particular, Concerned Citizens argued that "'while the [f]inal EA considers . . . "[t]ransportation impacts from normal operations," it fails completely to examine the likelihood and consequences of accidents that might occur during the annual transport of [cobalt]-60 sources to and from the proposed irradiator.'"[64] For this issue, the Board found that the Staff had not met its "hard look" NEPA obligation.[65] It then directed the Staff to amend the final EA to respond to the contention and to provide "more than conclusory assertions regarding the environmental consequences of transportation accidents."[66] The Board directed the Staff furthermore to "provide a full citation to any documents it relies on in its review, including, if relevant to transportation accidents, the [Generic Environmental Impact Statement] on the transportation of radioactive material in urban environments, and [to] summarize the issues and reasoning set forth in these incorporated documents as is required when documents are tiered."[67]

Deficiency 4 involved Concerned Citizens' claim that the final EA did not take the NEPA-required "hard look" at potential impacts from terrorism. Concerned Citizens argued that the final EA should have been circulated for additional public comment because the Staff's terrorism analysis initially did not refer to one of the documents listed in the *Vaughn*[68] index and because that document and one other were not released in redacted form during the comment period.[69] The Board found that the Staff's analysis satisfied the "hard look" standard[70] and that the EA supplement did not need to be circulated for additional comment.[71]

2. Contention 4

Concerned Citizens argued in this contention that the Staff was required under NEPA to evaluate reasonable technological and geographical alternatives to the

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[63] *See* Initial Decision at 41-46 (citing 2007 Amended Environmental Contentions at 14-17) (internal quotation marks omitted).

[64] Initial Decision at 47 (citing 2007 Amended Environmental Contentions at 18).

[65] Initial Decision at 51 n.263, citing the Final EA at 8 ("Transportation effects from normal operations would be small.") and at Appendix C, C-11 ("Radioactive materials required for irradiators are transported in lead-shielded steel casks. These casks are designed to withstand the most severe accidents, including collisions, punctures, and exposure to fire and water depths."), and finding that these statements did not respond to the specifics of Concerned Citizens' contention.

[66] Initial Decision at 51-52.

[67] *Id.* at 52.

[68] *See Vaughn v. Rosen,* 484 F.2d 820, 823-25, 827-28 (D.C. Cir. 1973).

[69] Initial Decision at 52, 54.

[70] *Id.* at 54.

[71] Initial Decision at 55.

proposed Pa'ina irradiator, and failed to do so. The Board reviewed the applicable regulations,[72] the statutory NEPA language,[73] and Ninth Circuit case law, and found this to be true:

> Although the discussion of alternatives in the EA need only be "brief" it must nevertheless be sufficient to fully comply with the requirement of [NEPA] section 102(2)(E) (i.e., study, develop, and describe appropriate alternatives") and applicable circuit precedent ("give full and meaningful consideration to all reasonable alternatives"). The law in the Ninth Circuit is that, "[s]o long as 'all reasonable alternatives' have been considered and an appropriate explanation is provided as to why an alternative was eliminated, the regulatory requirement is satisfied," and "[t]he range of alternatives that must be considered need not extend beyond those reasonably related to the purposes of the project." And the "rule of reason" necessarily informs that choice.[74]

Applying these standards to the Staff's analysis, the Board concluded that the Staff's consideration of the alternative technologies of methyl bromide fumigation and heat treatments was inadequate.[75] However, the Board clarified the EA itself, by virtue of its own review of an exhibit in the record that provided additional information on the fumigation and heat treatment alternatives.[76] With that clarification, the Board concluded that the EA discussion of these technologies was minimally sufficient.[77]

With respect to alternative technologies, the Board examined the Staff's consideration of the electron-beam (e-beam) irradiator technology in the EA and in the adjudicatory record in considerable detail.[78] A majority of the Board ultimately found insufficient justification for the Staff's failure to consider the e-beam irradiator in the EA,[79] and also found the record insufficient to remedy this Staff failure.[80] The Board found that in order to analyze the e-beam irradiator alternative, it would have to go outside the administrative record and outside

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[72] 10 C.F.R. § 51.30(a)(1)(ii), 40 C.F.R. §§ 1502.14(a) and 1508.9(b).

[73] NEPA § 102(2)(E).

[74] Initial Decision at 59 (footnotes omitted).

[75] *Id.* at 60-69.

[76] *Id.* at 69-71. *See generally* Email Letter from M. Kohn to M. Blevins (Feb. 28, 2007) (Prefiled Staff Exh. 26) (Kohn Letter).

[77] Initial Decision at 71.

[78] *See id.* at 71-100.

[79] *Id.* at 101. Judge Baratta dissented in part from the Board's decision on this point, interpreting the evidence differently and stating that he "consider[ed] that the testimony and exhibits clearly augment and clarify the administrative record and have now become part of the environmental document, obviating the need for the Staff to modify the EA to discuss electron beam technology." *Id.* at 111.

[80] *Id.* at 101.

its adjudicatory function. The Board therefore directed the Staff to amend or supplement the EA to consider properly the e-beam irradiator alternative and — since there was no previous discussion of this alternative in either the draft or the final EA — to allow a brief opportunity for public comment on the draft amendment or supplement. The Board found that a public comment period was required both by the settlement agreement and by Ninth Circuit case law.[81]

Similarly, the Board found that the Staff must consider reasonable alternative geographical sites for the proposed irradiator and must make its analysis available for written public comment.[82]

3. Contention 5

Based on its consideration of all of the Staff's submissions, the Board concluded that the Staff had no obligation to prepare an environmental impact statement and therefore dismissed Contention 5.[83]

C. Post-Decision Pleadings

Concerned Citizens filed a motion requesting clarification, or in the alternative, reconsideration, of the Initial Decision in connection with three points: whether the decision required the Staff to allow public comment on the transportation accident analysis Staff would prepare; whether the decision required revocation of the license; and whether the dismissal of Contention 5 was without prejudice.[84] The Board denied this motion, finding that the decision was clear on all three points.[85]

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[81] *Id.* at 102 (citing the rule set out in *Bering Strait Citizens for Responsible Resource Development v. U.S. Army Corps of Engineers,* 524 F.3d 938, 95[3] (9th Cir. 2008) ("[W]e now adopt this rule: An agency, when preparing an EA, must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decision-making process.")).

[82] Initial Decision at 108.

[83] *Id.* at 109.

[84] Intervenor Concerned Citizens of Honolulu's Motion to Clarify or, in the Alternative, for Reconsideration in Part of the August 27, 2009[,] Initial Decision (Sept. 8, 2009). *See also* Licensee Pa'ina Hawaii, LLC's Opposition to Intervenor's Motion to Clarify or, in the Alternative, for Reconsideration in Part of the August 27, 2009[,] Initial Decision . . . . (Sept. 18, 2009); NRC Staff's Response to Intervenor's Motion for Clarification or Reconsideration of Board's Initial Decision (Sept. 21, 2009).

[85] Order (Denying Intervenor's Motion to Clarify) (Sept. 29, 2009) (unpublished).

Timely petitions for review of the Initial Decision followed the resolution of Concerned Citizens' motion.[86]

II. DISCUSSION

A. Review Standards

We grant review of final initial decisions on a discretionary basis, giving due weight to a petitioner's showing that there is a substantial question with respect to one or more of the following considerations:

> (i) A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
> (ii) A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;
> (iii) A substantial and important question of law, policy, or discretion has been raised;
> (iv) The conduct of the proceeding involved a prejudicial procedural error; or
> (v) Any other consideration which the Commission may deem to be in the public interest.[87]

In our adjudicatory process, the licensing board's principal role "is carefully to review all of the evidence, including testimony and exhibits, and to resolve any factual disputes."[88] We refrain from exercising our authority to make *de novo* findings of fact in situations "where a Licensing Board has issued a plausible decision that rests on carefully rendered findings of fact."[89] As we have stated

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[86] Pa'ina subsequently filed a motion requesting that we (1) direct the Staff to conduct studies of two alternative sites for the proposed irradiator; (2) expedite review of the two petitions for review; and/or (3) establish a schedule for a final decision on those petitions. *See generally* Applicant Pa'ina Hawaii, LLC's Motion for Order/Direction That NRC Staff Study Two Alternative Sites for Proposed Irradiator, and/or for Commission to Expedite Appeal, and/or for Commission to Establish Schedule for Decision (Feb. 23, 2010) (Pa'ina Feb. 2010 Motion). *See also* Intervenor Concerned Citizens of Honolulu's Response to Applicant Pa'ina Hawaii, LLC's February 23, 2010 Motion (Mar. 5, 2010) (taking no position on the relief sought); NRC Staff's Response to Pa'ina's February 23, 2010 Motion (Mar. 4, 2010) (opposing the request that we direct the Staff to evaluate alternate sites and taking no position on the other two requests for relief).

[87] 10 C.F.R. § 2.341(b)(4).

[88] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 259 (2009) (citing *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-19, 62 NRC 403, 411 (2005)).

[89] *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, *(Continued)*

many times, "[w]hile [we have] discretion to review all underlying factual issues *de novo,* we are disinclined to do so where a Board has weighed arguments presented by experts and rendered reasonable, record-based factual findings."[90] "Our standard of 'clear error' for overturning a Board's factual findings is quite high."[91] We defer to a board's factual findings, correcting only "'clearly erroneous' findings — that is, findings 'not even plausible in light of the record viewed in its entirety'"[92] — where we have "strong reason to believe that . . . a board has overlooked or misunderstood important evidence."[93]

In contrast, "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.'"[94]

Our boards have the authority to regulate hearing procedure, and decisions on evidentiary questions fall within that authority.[95] "[A] licensing board normally has considerable discretion in making evidentiary rulings."[96] We apply an abuse of discretion standard to our review of decisions on evidentiary questions.[97]

We grant the Staff's petition for review in part, on the grounds that the Staff has demonstrated substantial questions as to the Board's correct application of NEPA jurisprudence, and as to whether certain actions taken by the Board constituted prejudicial procedural error.[98] In view of our deferential standard of review of the Board's findings of fact, we find that the Staff has not raised a substantial question as to the Board's findings, and we decline the petition for review as to these points. However, given that the Board made findings of fact in the absence of a required evidentiary hearing, we provide a more detailed discussion of the

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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).

[90] *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-06-22, 64 NRC 37, 40 (2006) (some internal quotation marks omitted).

[91] *Oyster Creek,* CLI-09-7, 69 NRC at 259 (citing *Private Fuel Storage,* CLI-03-8, 58 NRC at 26).

[92] *Louisiana Energy Services,* CLI-06-22, 64 NRC at 40 (some internal quotation marks omitted) (citing, *inter alia, Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-1, 63 NRC 1, 2 (2006); *Anderson v. Bessemer City,* 470 U.S. 564, 573-76 (1985)).

[93] *Oyster Creek,* CLI-09-7, 69 NRC at 259 (citing *Private Fuel Storage,* CLI-05-19, 62 NRC at 411).

[94] *Oyster Creek,* CLI-09-7, 69 NRC at 259 (citing *Tennessee Valley Authority* (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Brown's Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 190 (2004)).

[95] *See, e.g.,* 10 C.F.R. § 2.319(d).

[96] *Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-21, 60 NRC 21, 27 (2004); *see also Duke Power Co.* (William B. McGuire Nuclear Station, Units 1 and 2), ALAB-669, 15 NRC 453, 475 (1982).

[97] *Catawba,* CLI-04-21, 60 NRC at 27.

[98] *See* 10 C.F.R. § 2.341(b)(4)(ii), (iv).

Staff's fact questions than we otherwise might. Pa'ina's petition for review does not raise a substantial question as to any of the considerations identified in section 2.341(b)(4).

B. Analysis

Conceptually, the issues on which the Board directed further Staff action fall into two categories: NEPA alternatives and the effects of offsite source transportation. We examine NEPA alternatives first.

1. NEPA Alternatives

NEPA § 102(2)(C) requires federal agencies, "to the fullest extent possible" to "include in every recommendation or report on proposals for . . . major Federal actions significantly affecting the quality of the human environment; a detailed statement . . . on":

> (i) the environmental impact of the proposed action,
>
> (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
>
> (iii) alternatives to the proposed action,
>
> (iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
>
> (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.[99]

NEPA requires a hard look at environmental effects; "general statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive information could not be provided."[100] A "rule of reason" applies to the assessment of the adequacy of a NEPA analysis.[101]

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[99] 42 U.S.C. § 4332(2)(C).

[100] *Blue Mountains Biodiversity Project v. Blackwood,* 161 F.3d 1208, 1213 (9th Cir. 1998) (citing *Neighbors of Cuddy Mountain v. U.S. Forest Service,* 137 F.3d 1372, 1380 (9th Cir. 1998) (some internal quotation marks omitted)).

[101] *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 228-29 (2007).

This "rule of reason" is implicit in NEPA's requirement that an agency consider reasonable alternatives to a proposed action.[102]

NEPA twice refers to the consideration of "alternatives." In addition to the "alternatives" language in section 102(2)(C)(iii), quoted above, NEPA § 102(2)(E) requires federal agencies to "study, develop, and describe appropriate alternatives to recommend courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources."[103] As the Ninth Circuit has held, this section 102(E) "alternatives provision" applies both when an agency prepares an environmental impact statement and, as here, when it prepares an environmental assessment.[104] In either case, the provision requires the agency to give "full and meaningful consideration to all reasonable alternatives."[105] But the obligation to consider alternatives is a lesser one under an EA than under an EIS.[106] When preparing an EIS, the agency must "[r]igorously explore and objectively evaluate all reasonable alternatives."[107] In contrast, when preparing an EA, the agency only must "include a brief discussion of reasonable alternatives."[108] Even when a proposed action does not require preparation of an EIS, the "consideration of alternatives remains critical to the goals of NEPA."[109] In short, whether an agency is preparing an EA or an EIS, the alternatives that should be considered will be the same — it is only in the depth of the consideration and in the level of detail provided in the corresponding environmental documents that an EA and an EIS will differ.

Consistent with Council on Environmental Quality (CEQ) regulations,[110] we have by regulation designated certain actions as "categorically excluded" from the requirement to prepare an EA or an EIS:

> *Categorical Exclusion* means a category of actions which do not individually or

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[102] *Natural Resources Defense Council, Inc. v. Morton,* 458 F.2d 827, 834 (D.C. Cir. 1972).

[103] 42 U.S.C. § 4332(2)(E).

[104] *North Idaho Community Action Network v. U.S. Dept. of Transportation,* 545 F.3d 1147, 1153 (9th Cir. 2008).

[105] *Id. See also Center for Biological Diversity v. National Highway Traffic Safety Administration,* 538 F.3d 1172, 1217-18 (9th Cir. 2008).

[106] *Environmental Protection Information Center v. U.S. Forest Service,* 451 F.3d 1005, 1016 (9th Cir. 2006) (the environmental assessment "considered in detail a no-action alternative, the proposed Project alternative, and a third alternative that was similar. . . . [The agency] had also considered six additional alternatives, but eliminated them from detailed study for various reasons [that] were not arbitrary and capricious, and were tied to the stated purpose of the Project." *Id.*)

[107] 545 F.3d at 1153.

[108] *Id.*

[109] *Bob Marshall Alliance v. Hodel,* 852 F.2d 1223, 1228-29 (9th Cir. 1988).

[110] *See* 40 C.F.R. § 1508.4. It is our stated policy to take into account CEQ regulations voluntarily, subject to some conditions. *See* 10 C.F.R. § 51.10(a).

> cumulatively have a significant effect on the human environment and which the Commission has found to have no such effect in accordance with procedures set out in § 51.22, and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.[111]

Once a categorical exclusion has been established, the Staff need not prepare an environmental assessment or an environmental impact statement, absent the existence of "special circumstances."[112]

We have established a categorical exclusion for materials licenses associated with irradiators.[113] Irradiators, like the one proposed by Pa'ina, may be constructed at any site determined appropriate for commercial use.[114] The Honolulu Airport site Pa'ina proposes to use is, in fact, zoned for commercial use.[115] The site thus is reserved for commercial purposes whether or not Pa'ina secures a lease and constructs its irradiator. We see no "unresolved conflict regarding alternative uses of the site" — and none has been raised — and find no clear-cut "special circumstances" setting this particular project outside of our categorical exclusion associated with issuance of a materials license for irradiators. That said, the settlement stipulation between the Staff and Concerned Citizens — waiving the categorical exclusion — took the Staff's evaluation of this license application outside the norm for actions of this type.

The settlement stipulation sets the baseline for the Staff's obligation regarding the EA it agreed to perform, puts into play our regulations governing environmental assessments (as well as applicable agency and judicial legal precedent), and

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[111] 10 C.F.R. § 51.14(a).

[112] Our rules provide that "special circumstances" include "the circumstance where the proposed action involves unresolved conflicts concerning alternative uses of available resources within the meaning of section 102(2)(E) of NEPA." The Commission may find special circumstances upon its own initiative, or upon the request of an interested person. 10 C.F.R. § 51.22(b).

[113] 10 C.F.R. § 51.22(c)(14)(vii) provides:

> The following categories of actions are categorical exclusions:
>
> . . . .
>
> (14) Issuance, amendment, or renewal of materials licenses issued pursuant to 10 [C.F.R.] parts 30, 31, 32, 33, 34, 35, 36, 39, 40 or part 70 authorizing the following types of activities:
>
> . . . .
>
> (vii) Irradiators.

[114] Final Rule, Licenses and Radiation Safety Requirements for Irradiators, 58 Fed. Reg. 7715, 7726 (Feb. 9, 1993). Some NRC oversight is provided with respect to construction of a facility housing an irradiator. In particular, Condition 13 of Pa'ina's license prohibits the installation of sealed sources until the licensee has assured that the facility was constructed as described in the application, and has completed applicable tests required by 10 C.F.R. § 36.41 ("Construction Monitoring and Acceptance Testing").

[115] Pa'ina March 2009 Response at 27 ("the proposed Pa'ina lot site . . . is already zoned light industrial.").

defines the Staff's public participation commitment. Given the Staff's election to prepare an EA in conjunction with Pa'ina's application, the Board properly focused on the question of whether the Staff's analysis met applicable NEPA requirements. In so doing, the Board made the factual determination that, with respect to three issues, the Staff had not satisfied its obligation.

Several rules define the Staff's obligations for preparation of an EA,[116] including the following:

> An environmental assessment for proposed actions . . . shall identify the proposed action and include:
>
> (1) A brief discussion of:
>
> (i) The need for the proposed action;
>
> (ii) Alternatives as required by section 102(2)(E) of NEPA;
>
> (iii) The environmental impacts of the proposed action and alternatives as appropriate; and
>
> (2) A list of agencies and persons consulted, and identification of sources used.[117]

As identified in this proceeding, the main purpose of the proposed action is "to irradiate fresh fruits (primarily papayas), vegetables, cosmetics, and pharmaceutical products so that when they are sent to the United States mainland, they are insect-free."[118] The applicant's stated purpose defines the correlating range of alternatives that should be considered: while different from the specific proposal, the alternatives that should be considered must still accomplish the underlying purpose of the proposed action — here, Pa'ina's principal purpose in operating the irradiator is to render produce and other commodities pest-free.[119]

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[116] *Environmental Assessment* means a concise public document for which the Commission is responsible that serves to:

> (1) Briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.
>
> (2) Aid the Commission's compliance with NEPA when no environmental impact statement is necessary.

10 C.F.R. § 51.14(a). A third purpose is to "[f]acilitate preparation of an environmental impact statement when one is necessary." *Id. See also* 40 C.F.R. § 1508.9.

[117] 10 C.F.R. § 51.30(a).

[118] Initial Decision at 2. Additionally, "the irradiator will . . . be used for research and development projects and to irradiate other materials as approved by the NRC on a case-by-case basis." *Id.* The irradiator also may be used for treatment of fresh produce imported to Hawaii. Final EA at 1. *See also* Notice of License Request, 70 Fed. Reg. at 44,396; License Application at 8.

[119] *See, e.g., Highway J Citizens Group v. Mineta,* 349 F.3d 938, 960-61 (7th Cir. 2003) ("logically and legally, an agency is required to address three questions in considering alternatives. 'First, what is the purpose of the proposed project (major federal action)? Second, given that purpose, what are

(Continued)

The adequacy of the alternatives analysis is judged on the "substance of the alternatives" rather than the "sheer number of alternatives examined."[120] "So long as 'all reasonable alternatives' have been considered and an appropriate explanation is provided as to why an alternative was eliminated, the regulatory requirement is satisfied. . . . [T]he regulation does not impose a numerical floor on alternatives to be considered."[121] The consideration of alternatives is bounded by a "notion of feasibility."[122] "Alternatives that do not advance the purpose of the [project] will not be considered reasonable or appropriate."[123]

With these precepts in mind, we turn to consideration of the specific arguments made by Pa'ina and the Staff.

a. Electron Beam Irradiator Alternative Technology

Pa'ina argues — with respect to both alternative sites and alternative technologies — that the Board erred in directing the consideration of alternatives because the private nature of projects like this one entitles them to "great deference in their siting and design choices under NEPA."[124] Pa'ina bases this theory on a reading of our decision in *Hydro Resources*[125] where we stated:

> When reviewing a discrete license application filed by a private applicant, a federal agency may appropriately "accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project.'"[126]

Pa'ina calls this "the Commission's 'rule of deference' for privately-initiated projects."[127] But Pa'ina overstates our precedent. While we do accord "substantial weight" to an applicant's preferences, this does not equate to complete deference to those preferences. Such deference would, in many cases, preclude the consideration of reasonable alternatives that NEPA requires. While it is true that

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the reasonable alternatives to the project? And third, to what extent should the agency explore each particular reasonable alternative?'" (citing *Simmons v. U.S. Army Corps of Engineers,* 120 F.3d 664, 668 (7th Cir. 1997))).

[120] *Native Ecosystems Council v. U.S. Forest Service,* 428 F.3d 1233, 1246 (9th Cir. 2005).

[121] *Id.*

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

[123] 428 F.3d at 1247.

[124] Pa'ina Petition at 9.

[125] *Hydro Resources,* CLI-01-4, 53 NRC 31.

[126] *Id.* at 55.

[127] Pa'ina Petition at 10.

the project goal is to be determined by the applicant, not the agency,[128] "courts will not allow an agency to define the objectives so narrowly as to preclude a reasonable consideration of alternatives."[129] Here, the purpose of the proposed project — to eliminate pests from commodities destined for the mainland — might be achieved by employing alternative technologies instead of Pa'ina's preferred cobalt-60 irradiator. The Board's goal, in directing the Staff to consider the e-beam irradiator in its EA, is to ensure that the Staff's evaluation complies with NEPA's requirement to consider reasonable alternatives.

On this point, the Staff asks us to reassess the probative value of the information in the record. The Staff argues that the Board's decision to require consideration of e-beam irradiation as an alternative technology to the proposed cobalt-60 irradiator was prejudicial error.[130] The Staff concedes that it did not discuss the e-beam irradiator technology in the "Alternatives" section of the environmental assessment.[131] But the Staff maintains that the discussion on the record of the reasons it gave for not considering the alternative are the same as, and should count for, actual consideration of the alternative. Moreover, according to the Staff, this consideration was sufficient to satisfy NEPA especially given that the record, including the testimonies of Pa'ina's and Concerned Citizens' witnesses, augmented the environmental assessment. In concluding that the Staff's analysis was not sufficient, the Staff argues that the Board disregarded information in the record.

Like the Staff, Pa'ina challenges the Board's assessment of the probative value of the evidence presented. In particular, Pa'ina claims that the Board erred when it rejected the Staff's reliance on a letter from Pa'ina's principal, Mr. Kohn, based on the Board's view that it was an "advocacy piece of a salesman."[132] Pa'ina also argues that the Board "ignored" one piece of "high quality" evidence — namely, an SEC Form 10-Q filed by Titan Corporation, the manufacturer of the e-beam irradiator and a guarantor and lender to Hawaii Pride (operator of an e-beam irradiator in Hawaii). In Pa'ina's view, the 10-Q supported the Staff's conclusion that it is not financially feasible to operate an e-beam irradiator in Hawaii.[133]

Apart from disagreement with the Board's conclusions, the Staff and Pa'ina provide no compelling justification for disturbing the Board's factual findings.

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[128] *See generally Citizens Against Burlington, Inc. v. Busey,* 938 F.2d 190, 199 (D.C. Cir. 1990), *cert. denied,* 502 U.S. 994 (1991).

[129] *Citizens Committee to Save Our Canyons v. U.S. Forest Service,* 297 F.3d 1012, 1030 (10th Cir. 2002).

[130] Staff Petition at 15.

[131] *Id.* at 16.

[132] Pa'ina Petition at 10.

[133] *Id.* at 6-9.

We will not lightly reverse our boards' factual determinations,[134] and "will not overturn [a licensing board's] findings simply because we might have reached a different result."[135] In this instance, the Board detailed its consideration of the information in the record and rejected the Staff's reasons for eliminating the e-beam irradiator from consideration. It is clear from the record that the Staff's witness, Mr. Blevins, believed that an e-beam irradiator might serve the underlying pest elimination purpose of the proposed project,[136] and that Mr. Blevins agreed that using an e-beam irradiator might eliminate some potential hazards related to using a cobalt-60 irradiator.[137] It is also clear that the Staff removed the e-beam irradiator from consideration as an alternative due to perceived economic considerations.[138] Because the Staff did not believe there would be significant effects from using a cobalt-60 irradiator,[139] the Staff did not directly compare the environmental effects of using the two alternative technologies. But, given the Board's measured determination that the e-beam irradiator technology presented a reasonable alternative, we find no clear error in the Board's request that the Staff make this comparison.

Moreover, the Staff's argument that the Board failed to consider the entire administrative record is unavailing. To support its argument, the Staff cites specific answers in the Blevins initial and supplemental testimony,[140] and mentions the testimony of Pa'ina's witness, Mr. Kohn,[141] and Concerned Citizens' witness, Mr. Weinert.[142] But the Board considered and cited in its decision all but one

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[134] *Claiborne,* CLI-98-3, 47 NRC at 93.

[135] *Id.*

[136] NRC Staff's Supplemental Testimony of Matthew D. Blevins (Mar. 5, 2008) (Prefiled Staff Exh. 61) (Blevins Supp. Testimony), A.7.

[137] *Id.,* Q.8, A.8.

[138] *Id.,* A.7, A.8.

[139] *Id.,* A.8.

[140] *See* NRC Staff's Testimony of Matthew D. Blevins Concerning Amended Environmental Contentions 3 and 4 (Aug. 26, 2008) (Prefiled Staff Exh. 1) (Blevins Testimony); Blevins Supp. Testimony. The Staff cites Blevins Testimony, A.31 and Blevins Supp. Testimony, A.7, A.8, and A.11. *See* Staff Petition at 15 nn.28 & 30-31, 16 nn.32-34.

[141] *See* Written Direct Testimony of Michael Kohn (Sept. 15, 2008) (Kohn Testimony), *attached to* Licensee Pa'ina Hawaii, LLC's Rebuttal Memorandum in Opposition to Intervenor Concerned Citizens of Honolulu's August 26, 2008 Initial Written Statement of Position and in Response to NRC Staff's Initial Statement of Position and Initial Written Testimony (Sept. 15, 2008); Kohn Letter.

[142] *See* Written Rebuttal Testimony and Declaration of Eric D. Weinert (Sept. 3, 2008) (Weinert Rebuttal Testimony), *attached to* Intervenor Concerned Citizens of Honolulu's Rebuttal to NRC Staff's Statement of Position (Sept. 16, 2008); Supplemental Written Testimony and Declaration of Eric. D. Weinert (Jan. 27, 2009) (Weinert Supplemental Testimony), *attached to* Intervenor Concerned Citizens of Honolulu's Supplemental Statement of Position (Feb. 3, 2009).

of the Blevins answers the Staff cites in its petition for review,[143] so we cannot agree with the Staff that the Board ignored this part of the administrative record. As it happens, the one Blevins answer that the Staff cites, but the Board did not, contained Mr. Blevins's reflections on Mr. Kohn's and Mr. Weinert's testimonies.[144] Given that the Board itself examined the Kohn and Weinert testimonies at length in the decision, we also cannot agree that the Board ignored this part of the administrative record. We see no clear error in the Board's decision to require the Staff to perform the e-beam irradiator alternative analysis.

b. Alternative Sites

As we stated above, while we do accord substantial weight to a license applicant's preferences, we do not defer absolutely to those preferences. This includes an applicant's site preferences. NEPA requires us to analyze reasonable alternatives that, like the proposed project, would serve to advance its defined purpose. The level of analytic detail required in an EA is, as we noted above in our review of the law on NEPA alternatives, less than that required in an EIS. Nonetheless, reasonable alternatives must be considered as appropriate, and an explanation provided for their rejection. Patently, the identified purpose of the proposed irradiator reasonably may be accomplished at locations other than the proposed site.[145] Therefore, the Board's decision to require the consideration of alternative sites is reasonable — particularly given that Pa'ina does not have in hand an executed lease for the proposed site, and given that Pa'ina itself considered alternate sites[146] — facts noted by the Board in its decision.[147]

Pa'ina argues that Concerned Citizens "failed to carry its burden of *stating and supporting* any valid contention" because Concerned Citizens' experts did not identify any specific alternate sites for the proposed irradiator and "provided no 'specific evidentiary facts' describing how any alternate location was geo-

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[143] The Board cites Blevins Testimony A.31 and Blevins Supp. Testimony, A.7, A.8, and A.10. *See* Initial Decision at 73 nn.343-345, 74 nn.346-349, 75 nn.351-355.

[144] Blevins Supp. Testimony, A.11.

[145] *Compare Methow Valley Citizens Council v. Regional Forester,* 833 F.2d 810 (9th Cir. 1987) *rev'd and remanded on other grounds, Robertson v. Methow Valley Citizens Council,* 490 U.S. 332 (1989), *aff'd on remand,* 879 F.2d 705, 706 (9th Cir. 1989) ("Here the Forest Service's purpose — to provide a 'winter sports opportunity' — is broadly framed in terms of service to the public benefit. It is not, *by its own terms,* tied to a specific parcel of land." 833 F.2d at 815 (emphasis in original). "Appellants have offered evidence suggesting that other sites may be well suited for the type of recreational development envisioned by the Forest Service." *Id.* at 816.).

[146] Concerned Citizens Opposition to Pa'ina Petition at 4-6, citing an e-mail from Pa'ina's Mr. Kohn (identified by the Board, Initial Decision at 106, as Concerned Citizens Initial Statement, Exh. 20 (Email from Michael Kohn to Jack Whitten (Aug. 28, 2006) (Kohn E-mail))).

[147] Initial Decision at 106.

logically sound, properly zoned, commercially available and near to appropriate transportation infrastructure."[148] Pa'ina, therefore, appears to argue the propriety of the Board's decision to admit this portion of the contention at the outset. But this argument ignores the fact that, as Concerned Citizens points out,[149] the primary obligation of satisfying the requirements of NEPA rests on the agency.[150] Further, Pa'ina does not raise an effective challenge to the Board's contention admissibility determination, which evaluated the proposed contention relative to each of our contention admissibility requirements.[151]

The Staff's arguments are predicated on the notion that the NEPA requirement to consider a range of alternatives in an environmental assessment can be satisfied by considering only one type of alternative — technological — even where considering another type of alternative — geographical — may be reasonable in the particular circumstances of a proposed action. The Staff argues that it appropriately limited its analysis to four alternatives.[152] According to the Staff, "because it had already considered a number of alternatives to the proposed action, it could rely on NEPA's rule of reason to forgo considering *any* additional alternatives, including alternative sites."[153] The Staff maintains that NEPA's rule of reason does not require an agency to undertake a "separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences."[154]

In our view, in this case alternative sites are "significantly distinguishable" from the alternative technologies the Staff considered. Further, the record does not contain sufficient information to discern whether the consequences of siting the irradiator at an alternative location would be "substantially similar." It therefore

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[148] Pa'ina Petition at 5 (emphasis in original).

[149] Concerned Citizens Opposition to Pa'ina Petition at 2.

[150] *See* NEPA § 102(2)(C); *See also Department of Transportation v. Public Citizen,* 541 U.S. 752, 765 (2004); *'Ilio'ulaokalani Coalition v. Rumsfeld,* 464 F.3d 1083, 1092 (9th Cir. 2006); *Claiborne,* CLI-98-3, 47 NRC at 89.

[151] The Board found that the contention raised the legal issue of whether the Staff's failure to consider alternative locations complied with NEPA (10 C.F.R. § 2.309(f)(1)(i)); described the legal basis for its contention under Ninth Circuit legal precedents (§ 2.309(f)(1)(ii)); satisfied the scope and materiality requirements by raising a legal issue related to completeness of the EA and compliance with NEPA (§ 2.309(f)(1)(iii & iv)); and presented a legal contention of omission and a genuine dispute over compliance with NEPA (§ 2.309(f)(1)(v & vi)). December 2007 Order at 30-32. We find that the Board did not commit clear error in admitting this portion of the contention. In addition, we observe that Pa'ina identified alternate sites for its own consideration. *See, e.g.,* Kohn Email (discussing an existing building on Ualena Street).

[152] *See* Staff Petition at 19. The Staff identifies the four alternatives as the no-action alternative, methyl bromide fumigation, heat treatment, and e-beam radiation. *Id.* at 19 n.38.

[153] *Id.* at 20 (emphasis in original).

[154] Staff Reply to Concerned Citizens Opposition at 4 (quoting *Westlands Water District v. U.S. Department of Interior,* 376 F.3d 853, 868 (9th Cir. 2004)) (internal quotation marks omitted).

was not clear error for the Board to require the Staff to consider alternate sites in this particular proceeding — even though consideration of alternative sites is not universally required in the preparation of an environmental assessment.

The Staff maintains that for the Pa'ina irradiator, it reasonably took into account the site-specific risks. The Staff notes that, in its technical review, it "found no foreseeable radiological consequences from an aircraft crash or natural phenomenon at Pa'ina's proposed site, with the possible exception of a temporary increase in the radiation level directly above the irradiator pool" and "found an offsite radiation release to be entirely speculative"[155] — and analyzed a correspondingly appropriate number of alternatives. The Staff argues that there is a correlation between the number of alternatives that must be considered to satisfy NEPA and the environmental impact of the proposed action, such that actions with lesser impacts require consideration of fewer alternatives. Concerned Citizens counters that the Staff's legal argument is incorrect, particularly under Ninth Circuit precedent. According to Concerned Citizens, "to pass legal muster, regardless of whether it was preparing an EA or an EIS for Pa'ina's irradiator, the Staff had 'to give full and meaningful consideration to *all reasonable alternatives.*'"[156]

In our view, the Board's decision does not mandate consideration of any specific, or unreasonably large, number of alternatives, and does not direct the Staff to conduct an extensive search for alternatives. Instead, the Board's decision directs consideration of a range of alternatives that we agree, in this proceeding, reasonably should include site alternatives.

The Staff argues that there are no unresolved conflicts over the use of the resource at issue — the proposed site — for commercial purposes. The Staff maintains that "to the extent there were any *unresolved conflicts concerning alternative uses of available resources,* the Staff addressed those conflicts by considering four alternatives to cobalt-60 irradiation."[157] These arguments are beside the point. The concern is not whether the proposed site could be used for alternate purposes, but whether the purpose of the proposed action can be achieved at an alternate site. Alternative sites (like alternative technologies) plainly could serve to advance the underlying purpose of the proposed project.

The Staff maintains that "[i]t was reasonable for the Staff to focus its study of alternatives on those alternatives which, unlike alternative sites, would fully resolve concerns raised by [Concerned Citizens] and other members of the public

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[155] Staff Petition at 20-21.

[156] Concerned Citizens Opposition to Staff Petition at 18-19 (citing *N. Idaho Cmty. Action Network v. U.S. Dept. of Transp.,* 545 F.3d at 1153 (emphasis added by Concerned Citizens)).

[157] Staff Petition at 22 (emphasis added). The italicized language is taken from NEPA § 102(2)(E) — and also from the description in 10 C.F.R. § 51.22(b) of the "special circumstances" that potentially can take a proposed project out of a categorical exclusion that normally would apply.

regarding Pa'ina's use of radioactive material."[158] But it may be that siting the proposed irradiator at another location *will* resolve at least some of the concerns raised by Concerned Citizens and other members of the public.

We also are not persuaded by the Staff's argument that it is enough to consider only the proposed action and the no-action alternative.[159] The cases the Staff cites do not stand for that proposition in any event. In one, while the "'no action' alternative and the 'preferred alternative' . . . were the focus of the EA and given detailed consideration," the agency actually "considered a total of six alternatives, four of which were raised but rejected without detailed consideration."[160] In the second, the proposed project was a 2-year experimental program and the agency's EA considered four alternatives: the "no-action" alternative, the as-proposed program, a "seasonal use" option, and the option of discontinuing the program altogether.[161]

The alternatives the Staff considered are of a single type, that is, technological alternatives. The facts in this case are, in our view, analogous to cases where "courts focused on the failure of the agency to consider an entire range of options without adequate explanation."[162] Thus, the question becomes whether the Staff provided an adequate explanation for its decision to exclude consideration of alternate sites.

The Staff characterizes as an "appropriate explanation" for not considering more alternatives, including alternative sites, the combination of its determination that "any environmental impacts associated with Pa'ina's proposed site would be negligible," its consideration of (in its opinion) four alternatives, and the reasonable conclusion (in its view) that it need not consider other alternatives.[163] The Staff argues that, despite its agreement to prepare an environmental assessment, it remained free to take into account the judgment underlying the categorical exclusion of irradiators for the purpose of computing the number of alternatives it should examine.[164]

At bottom, the Staff's finding that environmental impacts at the proposed site would be negligible says nothing about the site's relative impact compared to

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[158] Staff Petition at 22.

[159] *Id.* at 23.

[160] *Native Ecosystems,* 428 F.3d at 1245.

[161] *Akiak Native Community v. U.S. Postal Service,* 213 F.3d 1140, 1148 (9th Cir. 2000).

[162] *Louisiana Crawfish Producers Association–West v. Rowan,* 463 F.3d 352, 357 n.2 (5th Cir. 2006). The court distinguishes the facts of the case before it from those of other cases where the agency failed to consider a range of alternatives without explanation — including a case where "the Ninth Circuit held that by considering only a no-action alternative along with two 'virtually identical alternatives,' the agency had failed to consider a reasonable range of alternatives." *Id.* (citing *Muckleshoot Indian Tribe v. U.S. Forest Service,* 177 F.3d 800 (9th Cir. 1999)).

[163] Staff Petition at 22.

[164] *Id.* at 21.

impacts associated with alternative sites. It may be that the environmental impacts would be substantively identical at a site that is, for example, located farther from the Honolulu Airport. But the record does not provide the information necessary for us to draw that conclusion. And, as Concerned Citizens argues, even though the analysis provided in an EA does not have to be as comprehensive as the analysis provided in an EIS, there must be "at least 'a brief discussion of reasonable alternatives.'"[165] Consideration of three alternatives does not mean the Staff can omit considering an additional, reasonable, alternative that also satisfies the underlying purpose of the proposed action.

In sum, we agree that in connection with this proposed action it is appropriate for the EA to include a brief analysis of the environmental impacts associated with siting the irradiator at a different location. In our view the Board did not clearly err in requiring the Staff to consider sites other than the proposed site, at the level of detail appropriate for an EA. But let us be clear: we do not find today that alternative sites always must be analyzed in an EA; analysis is appropriate only when such sites are determined to be reasonable alternatives. But in this particular instance, we decline to disturb the Board's determination that an analysis of alternative sites is appropriate.[166]

2. Offsite Transportation Accidents

The Staff argues that the Board committed prejudicial procedural error in its handling of Concerned Citizens' proposed amendment to Contention 3. Further, the Staff and Pa'ina both challenge the Board decision directing the Staff to prepare additional analysis of the impacts of potential accidents during the transportation of cobalt-60 sources. We start with the Staff's arguments.

a. Admissibility of Amended Contention 3

The Staff contends that the Board committed prejudicial error because it did not rule on Concerned Citizens' 2009 Amended Contention 3,[167] and yet made a merits determination on Contention 3 that required the Staff to amend the EA, based in part on information included only with this amended contention (and therefore not subject to merits briefing). The Staff complains particularly about a footnote in the Board's decision, in which the Board directed the Staff to "reconcile its

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[165] Concerned Citizens Opposition to Staff Petition at 19 (citing 545 F.3d at 1153).

[166] Recently, Pa'ina requested, among other things, that we direct the Staff to study two alternative sites, identified by Pa'ina, in order to facilitate the conclusion of this proceeding. Although we see no need to direct the Staff's review in this regard, the Staff is free to consider Pa'ina's suggested sites. *See* Pa'ina Feb. 2010 Motion at 7-9.

[167] *See* Initial Decision at 52.

expert's findings with those of [Concerned Citizens'] expert,"[168] where Concerned Citizens' expert Dr. Resnikoff's findings were contained in an attachment to the proposed — and unaddressed — amended contention.[169] This was arbitrary and prejudicial, the Staff argues, because it denied the Staff the opportunity to rebut Concerned Citizens' testimony, which the Staff would have had if the merits of the contention had been litigated. Concerned Citizens maintains that the Board's decision was not prejudicial because the Board's "Initial Decision expressly states the Board based its order on the Staff's failure to 'respond[ ] to [Concerned Citizens'] *specific admitted contention,*' not on Concerned Citizens' '*newly filed contention.*'"[170]

The Board was required to decide whether the proposed amended contention was admissible under 10 C.F.R. § 2.309(f)(2).[171] In declining to rule on Concerned Citizens' 2009 Amended Contention 3, the Board disregarded our rules and also committed prejudicial procedural error. The Board provides little to justify its decision to disregard our contention admissibility requirements with respect to this amended contention.[172] The Board states simply — with no citation to our procedural rules — that it "will refrain from needlessly devoting time and effort to resolving the battle between the Staff and [Concerned Citizens] over the admissibility of its newly filed contention."[173] The Board purports to base its merits decision on the inadequacy of testimony provided previously. But in our view, the Board's direction to the Staff to reconcile its expert's findings with Dr. Resnikoff's findings demonstrates that the Board considered the affidavit associated with the amended contention in making its merits decision. The parties never had the opportunity to challenge the merits of this material and were, in effect, left with a lack of clarity regarding the scope of the admitted contention, and, particularly, the status of proffered testimony. Given these considerations

[168] *Id.* at 51 n.262.

[169] 2009 Amended Contention 3, Declaration of Marvin Resnikoff, Ph.D. Re: Intervenor Concerned Citizens of Honolulu's Amendment to Environmental Contention 3 Re: Transportation Accidents (Apr. 2, 2009) (attached) (Resnikoff Testimony).

[170] Concerned Citizens Opposition to Staff Petition at 6 (citing Initial Decision at 51-52 (emphasis added by Concerned Citizens)).

[171] There has been some discussion recently over the application of 10 C.F.R. § 2.309(f)(2) (governing new or amended contentions), and 10 C.F.R. § 2.309(c) (governing untimely petitions). *See generally Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-1, 71 NRC 165 (2010). To be clear, in the circumstances presented here, where Concerned Citizens was admitted to this case as a party at the time it filed Amended Contention 3, consideration of the contention's admissibility is governed by the provisions of section 2.309(f)(2), as well as the general contention admissibility requirements of section 2.309(f)(1).

[172] Nor did the Board otherwise dispose of the contention, for example, by finding that Concerned Citizens' amended contention was somehow moot or had been superseded.

[173] Initial Decision at 52.

and the 5-year duration of this proceeding, we exercise our authority to consider the admissibility of Concerned Citizens' amendments to Contention 3 on our own initiative.[174]

Under our rules, contentions may be amended or new contentions filed, with permission from the presiding officer, if the petitioner shows that:

> (i) The information upon which the amended or new contention is based was not previously available;
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> (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
>
> (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information.[175]

As discussed below, we find that Concerned Citizens satisfied these requirements and we admit Amended Contention 3.

Concerned Citizens filed Amended Contention 3 on April 6, 2009, in response to Mr. Easton's March 5, 2009, testimony. The Board explained earlier in the proceeding that it would consider a contention filed within 30 days of the issuance of a document that "legitimately undergirds" the contention "as timely and presumptively meeting the good cause requirement of section 2.309(c)(1)(i) and (f)(2)(iii)."[176] We find this to be a reasonable deadline, which Concerned Citizens met in filing Amended Contention 3.

Additionally, the amended contention was based on new and materially different information, previously unavailable, thus satisfying section 2.309(f)(i) and (ii). The Board's treatment of the 2009 Easton Testimony makes clear that the Board considered the information contained in that testimony to be "new." The Board appears to adopt Concerned Citizens' characterization of the Staff's March 5, 2009, discussion (in its response to Concerned Citizens' Supplemental Statement of Position) as the "first time" the Staff addressed the impacts of transportation accidents.[177] Citing the 2009 Easton Testimony discussion of releases of radioactive material from Type B packages and of the probability that a transportation accident will occur, the Board found that, "in a few, unsupported sentences, the Staff's expert makes broad, generalized statements" marking "the first time the Staff or any of its experts has attempted to respond" to the transportation

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[174] *Compare Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552-54 (2009) (in which the Commission found that the Board did not provide clarity on the scope of admitted contentions, and reformulated the contentions).

[175] 10 C.F.R. § 2.309(f)(2).

[176] Order (May 1, 2006), at 2-3 (unpublished).

[177] Initial Decision at 48.

contention.[178] Significantly, the Board's discussion of the 2009 Easton Testimony in making its merits ruling would have been unnecessary had the information been available from a record source other than this testimony.[179] Moreover, despite the Staff's insistence that Concerned Citizens should have challenged the Staff's asserted reliance on the NUREG-0170 transportation analysis in August 2008,[180] the Staff nowhere identifies where in the record it extended that analysis to the specifics of this action, aside from Mr. Easton's new testimony.

The materiality of Mr. Easton's new testimony also is apparent. We note particularly the Board's references to the 2009 Easton Testimony[181] and the Board's identification of inconsistencies between this testimony and Dr. Resnikoff's testimony.[182] The Board's consideration of Dr. Resnikoff's testimony prompted another anomaly: the Staff attaches a supplemental affidavit (the Easton Affidavit) to its petition for review. The Easton Affidavit contains supplemental testimony intended to counter the Resnikoff Testimony. Moreover, Concerned Citizens' response to the Staff Petition makes assertions that, had the amended contention been admitted properly, likely would have been subject to merits briefing by the parties and questioning by the Board.[183] Given the confusion in the adjudicatory record due to the Board's error, we remand the remaining pieces of Contention 3,[184] as amended and admitted today, to the Board for further consideration.

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[178] *Id.* at 51.

[179] We note that the Staff specifically identified the part of the 2009 Easton Testimony that was new to the proceeding in opposing Amended Contention 3. The "new" piece is Mr. Easton's view that NUREG-0170's conclusions apply in this case and his confirmation that those "conclusions remain valid in light of more recent data and reports." Staff Opposition to Amended Contention 3 at 9.

[180] *See id.* at 7-10.

[181] Initial Decision at 50-51.

[182] *Id.* at 51 n.262.

[183] Concerned Citizens asserts that this supplemental affidavit "merely reaffirms that transportation accidents resulting in releases of radioactive material do, in fact, occur." Concerned Citizens Opposition to Staff Petition at 10. Concerned Citizens argues that the Staff expert's "claim that, if packages are not properly secured or prepared, they are not, by definition, 'Type B' ignores that failures to follow procedures and comply with permit conditions are often key factors that lead to accidents and result in impacts on the human environment." *Id.*

[184] Contention 3 consists of: deficiency number 1, ninth comment and deficiency number 3, ninth instance (allegation). *See* Initial Decision at 29 ("the Staff either ignored or shunted aside with conclusory statements . . . the failure of the EA 'to examine accidents involving transportation of [cobalt]-60 sources to and from the proposed irradiator.'"); *id.* at 47 ("while the [f]inal EA considers . . . [t]ransportation impacts from normal operations, it fails to examine the likelihood and consequences of accidents that might occur during the annual transport of [cobalt]-60 sources to and from the proposed irradiator." (internal quotation marks omitted)); and discussion *id.* at 47-52.

b. Legal Challenges Associated with Contention 3

The Staff argues that the Board made two substantive errors of law as part of its ruling on Contention 3. First, the Board concluded that the operation of the Pa'ina irradiator and the impacts of the transportation of cobalt-60 are connected actions under NEPA.[185] Although the Staff concedes that transportation of sources to the Pa'ina irradiator would be an indirect effect of the licensing action,[186] the Staff nevertheless argues that the transportation of cobalt-60 sources and the operation of the proposed irradiator are not "connected actions" under NEPA because neither the operation of the irradiator nor the transportation is a federal action. According to the Staff, the Board's analysis confuses "indirect effects" under 40 C.F.R. § 1508.8(b)[187] with "connected actions" under 40 C.F.R. § 1508.25(a)(1),[188] and we should take review to clarify that a "connected action" theory does not apply.[189]

From Concerned Citizens' perspective, the Staff's argument is beside the point. Concerned Citizens argues that the Staff must consider all impacts, whether characterized as direct, indirect, or cumulative, and must consider actions, including those carried out by others, if they are "connected actions."[190] On this point, we agree with Concerned Citizens.

Whether the Staff is required to assess transportation impacts as a "connected action" or as an "indirect effect" is a distinction that is not outcome-determinative in this case, and we need not decide it here. NEPA requires the consideration of reasonably foreseeable environmental impacts. The licensing action at issue involves a materials license for cobalt-60 sources for use in an industrial irradiator. The use of that materials license carries with it the potential for transportation

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[185] Initial Decision at 49-50.

[186] Staff Petition at 14.

[187] "Effects" are defined in 40 C.F.R. § 1508.8 to include:

> (a) Direct effects, which are caused by the action and occur at the same time and place.
>
> (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

[188] "Connected actions . . . are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

> (i) Automatically trigger other actions which may require environmental impact statements.
>
> (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
>
> (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

40 C.F.R. § 1508.25(a)(1).

[189] Staff Petition at 14.

[190] Concerned Citizens Opposition to Staff Petition at 14.

impacts associated with source shipments to and from the irradiator site. The scope and severity of such impacts, and whether they are reasonably foreseeable in the first instance, involve questions of fact that are at the very heart of the contested issue.

This leads to the Staff's second legal challenge to the Initial Decision's ruling on this portion of Contention 3. The Board concluded that the Staff failed to address adequately the environmental impacts associated with transportation accidents in its EA, and directed the Staff to amend the EA to directly and sufficiently respond to the contention.[191] The Staff maintains that it need not amend the EA to analyze the environmental consequences of transportation accidents, because such consequences are not reasonably foreseeable.[192] Concerned Citizens counters that impacts are reasonably foreseeable under NEPA, and must be analyzed publicly, "even if their probability of occurrence is low."[193] In their pleadings on review, the Staff and Concerned Citizens dispute the adequacy of Type B packaging and the historical occurrence of transportation accidents. These disputed issues involve fact questions, the resolution of which will guide the determination of whether the environmental consequences of transportation accidents are reasonably foreseeable, and therefore should be included in the Staff's EA. The Board should resolve these issues on remand during its consideration of now-admitted Amended Contention 3.

For its part, Pa'ina argues that the Staff should not be required to evaluate transportation accidents because the cobalt-60 will be shipped by a currently unknown separate Part 71 licensee, not a party to this proceeding, by a route currently unknown, for which mitigation methods cannot presently be assessed.[194] Here again, in our view, Pa'ina raises a factual issue that should be litigated at an evidentiary hearing.

Pa'ina makes three other arguments, none of which raises a substantial question as to the Board's findings of fact or conclusions of law. Pa'ina challenges the relevance of several cases cited by the Board on the transportation issue. In particular, Pa'ina argues that analogies to situations where we have considered the environmental impacts of construction activities — such as road, rail, or

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[191] Initial Decision at 50-52.

[192] Staff Petition at 11 (citing *Warm Springs Dam Task Force v. Gribble,* 621 F.2d 1017, 1026-27 (9th Cir. 1980) (an agency would not proceed in the face of any substantial risk that a dam might fail, making consequences of such a failure "remote and speculative." Therefore, detailing "the catastrophic results of the failure of a dam" in an EIS "would serve no useful purpose.")). *See also* Staff Petition at 13.

[193] Concerned Citizens Opposition to Staff Petition at 11 (citing 40 C.F.R. § 1502.22(b)(4), and *San Luis Obispo Mothers for Peace v. NRC,* 449 F.3d 1016, 1033 (9th Cir. 2006), *cert. denied sub nom. Pacific Gas & Electric. Co. v. San Luis Obispo Mothers for Peace,* 549 U.S. 1166 (2007)).

[194] Pa'ina Petition at 11.

transmission line construction — outside the physical boundaries of a proposed facility are inapposite because there will be no offsite rail or road construction activities related to construction of the Pa'ina irradiator.[195] While it is true that the cases cited by the Board involved offsite construction,[196] and offsite construction does not appear to be part of the plan here even immediately adjacent to the proposed site, it does not follow that offsite consequences need not be considered. As stated above, construction and operation of the irradiator carries with it transportation of the necessary cobalt-60 sources; this linkage means that all reasonably foreseeable impacts, including any reasonably foreseeable impacts of accidents resulting from transportation of the sealed sources to and from the irradiator, may be appropriate for consideration in the Staff's EA.

Pa'ina argues, based on the Board's earlier dismissal of two "near-identical" safety contentions, that "[i]f the transportation of [cobalt]-60 to and from Hawaii was not a relevant safety issue connected to Pa'ina's materials license application in 2006, then logically there could be no relevant environmental impacts attributable to, or the responsibility of, Pa'ina in 2009."[197] "The AEA and NEPA contemplate *separate* NRC reviews of proposed licensing actions."[198] While our safety and environmental reviews may consider overlapping concerns, they are separate and independent, with differing objectives and scope, governed by different statutes with different requirements. Consequently, the fact that the Board dismissed a safety-related transportation contention is not dispositive of the merits of the NEPA-based transportation contention.

Finally, Pa'ina argues in the alternative that "the Board should have ordered the [Generic Environmental Impact Statement] on the transportation of radioactive material in urban areas to be incorporated into the EA, and no comment period would be necessary because (1) the [Generic Environmental Impact Statement] when developed was available for public comment, and has been ever since, and (2) the documents and files in this proceeding have been available for over four years."[199] The Board observed that the only cited Generic Environmental Impact Statement[200] does not consider specifically the transportation of radioactive

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[195] *Id.* at 12.

[196] Initial Decision at 50 (citing *Kansas Gas & Electric Co.* (Wolf Creek Generating Station, Unit 1), CLI-77-1, 5 NRC 1, 8 (1977) (access road and rail spur) and *Detroit Edison Co.* (Greenwood Energy Center, Units 2 and 3), ALAB-247, 8 AEC 936 (1974) (high voltage transmission lines)).

[197] Pa'ina Petition at 11.

[198] *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 13 (2001) (emphasis in original) (citing *Limerick Ecology Action v. NRC,* 869 F.2d 719, 729-31 (3d Cir. 1989)).

[199] *Id.* at 12.

[200] NUREG-0170, "Final Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes" (Dec. 2007).

material in urban areas.[201] Given our decision to remand Contention 3 to the Board, the applicability of NUREG-0170 to the environmental review associated with the Pa'ina application, in our view, is an issue appropriate for further consideration by the Board in conjunction with that contention.

3. Comment Period

As a final matter, the Staff argues that the Board's decision to require a brief public comment period following issuance of a revised or supplemental environmental assessment was clear error because neither the settlement stipulation nor Ninth Circuit precedent mandates a comment period for an EA supplement.[202] Concerned Citizens responds that the Staff's interpretation of the settlement stipulation "elevates form over substance" and that the "clear intent" of the settlement stipulation was to guarantee the public a meaningful opportunity to offer responsive input on the Staff's analysis, including the Staff's analysis of the potential impacts of Pa'ina's proposal and "alternatives that might be pursued with less environmental harm."[203] Concerned Citizens maintains that because the EA omitted any discussion of the environmental impact of transportation accidents, alternate sites, or the e-beam alternative, the Staff's analyses will include new information on those subjects, and "[t]he Board properly recognized that an additional comment period was necessary" to ensure compliance with the settlement stipulation.[204]

As part of the settlement stipulation, the Staff stated that it would "prepare an environmental assessment for [Pa'ina's] proposed irradiator"[205] and "prior to making any final finding," committed to making its draft finding of no significant impact available "for public review and comment" and to holding "at least

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[201] *See* Initial Decision at 49 n.255 ("the document to which the Staff cites, NUREG-0170, does not, by its own admission, 'specifically consider facets unique to the urban environment,' the environment in which the proposed irradiator is located. . . . Rather, NUREG-0170 states that '[a] separate study specific to such considerations is being conducted and will result in a separate environmental statement specific to such an urban environment.'" Initial Decision at 49 n.255, citing NUREG-0170 at iv. "To date, the Staff has not filed or cited the allegedly forthcoming and relevant environmental study on the transportation of radioactive material in urban environments." Initial Decision at 49 n.255.).

[202] Staff Petition at 23-25.

[203] Concerned Citizens Opposition to Staff Petition at 22.

[204] *Id.* at 23. Additionally, Concerned Citizens argues, the Staff's failure to provide analysis of transportation accidents and the two alternatives in the EA or in the proceeding before the Board deprived Concerned Citizens and the general public of their opportunity to "weigh in with their views and thus inform the agency decision-making process." *Id.* (citing Initial Decision at 13 (quoting *Bering Strait Citizens for Responsible Resource Development v. U.S. Army Corps of Engineers,* 524 F.3d 938, 953 (9th Cir. 2008))).

[205] Settlement Stipulation at 1.

one public meeting in Honolulu, [Hawaii] at which the public will have the opportunity to offer comment on the record."[206] We agree with the Board that the previous comment period does not satisfy the stipulation agreement in light of the supplementation of the EA. We therefore find that the Board did not err in requiring a brief written comment period to allow the public to address the amended or supplemented EA. In our view, providing such a comment period is consistent with the underlying intent of the settlement stipulation. A comment period also is consistent with the public participation goals of NEPA. "An agency, when preparing an EA, must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decision-making process."[207]

4. Pa'ina's Request to Reinstate the Categorical Exclusion

Pa'ina argues that the dismissal of a large number of Concerned Citizens' contentions shows that there were no "special circumstances" taking the proposed irradiator out of 10 C.F.R. § 51.22(c)(14)(vii)'s "categorical exclusion" of irradiators from projects requiring environmental assessments — in short, the "categorical exclusion" appropriately applied to the Pa'ina irradiator. Pa'ina argues further that Concerned Citizens' contentions were a "disguised challenge" to 10 C.F.R. § 51.22(c)(14)(vii), and as such an impermissible challenge to the NRC's regulations.[208] Pa'ina maintains that since the application should have been categorically excluded from NEPA analysis, the Board's decision is in error "and will result in time-consuming, redundant, 'gratuitous analyses.'"[209]

These arguments echo earlier Pa'ina arguments[210] rejected by the Board[211] because of the procedural posture of the "categorical exclusion" issue. We again reject them, for the reasons articulated by the Board. Quite simply, the Staff waived "categorical exclusion" status for the Pa'ina application in the settlement stipulation entered into by the Staff and Concerned Citizens and accepted by the Board. Later resolution of contentions, whether dismissed at the contention admissibility stage or rejected on the merits, does not alter the fact that the

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[206] *Id.* at 2.

[207] *Bering Strait,* 524 F.3d at 953. See 40 C.F.R. § 1500.1(b) ("NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. . . .").

[208] Pa'ina Petition at 13.

[209] *Id.* at 14.

[210] Pa'ina Categorical Exclusion Motion. *See also* Pa'ina's Initial Statement of Position at 11-12.

[211] Categorical Exclusion Order.

categorical exclusion has been waived for the purposes of this proceeding. As the Board noted:

> Ordinarily, the Staff need not prepare an environmental assessment for an irradiator facility because irradiators fall under the categorical exclusion of 10 C.F.R. § 51.22(c)(14)(vii). Here, however, the Staff, in effect, waived the categorical exclusion in the joint stipulation and thus was obligated to prepare an environmental assessment in full compliance with NEPA and applicable precedent, including those of the United States Court of Appeals for the Ninth Circuit — the federal circuit encompassing Hawaii.[212]

The Staff committed to performing an environmental review that satisfies NEPA. This commitment stands, even if "special circumstances" that would otherwise justify removing the proposed action from the exclusion were not present. We decline to reinstate the categorical exclusion.

* * * *

One additional matter merits discussion. Once a hearing is granted under Subpart L, our rules require an informal oral hearing on the merits, except in the limited circumstances described in 10 C.F.R. § 2.1206:

> Hearings under this subpart will be oral hearings as described in § 2.1207, unless . . . the parties unanimously agree and file a joint motion requesting a hearing consisting of written submissions. A motion to hold a hearing consisting of written submissions will not be entertained unless there is unanimous consent of the parties.[213]

Additionally, in connection with our 2004 Part 2 revisions, in our discussion of Subpart L, we stated:

> [T]he Commission believes that if the presiding officer has the opportunity to examine the witnesses, the presiding officer will be able to gain a better understanding of the testimony, and efficiently oversee the development of evidence relevant to the resolution of the contested matter in the hearing. Written follow-up questions propounded by a presiding officer are, at best, an inefficient substitute for the "back-and-forth" ability of a presiding officer to question witnesses orally, and experience indicates consumes more time and resources of the presiding officer and

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[212] Initial Decision at 3 n.14.

[213] Merits issues sometimes may be resolved via summary disposition, which would obviate the need for a hearing. But that did not occur here. The Board expressly informed the parties that it would not entertain motions for summary disposition (*see* Initial Decision at 7 nn.33 & 35). The Staff nonetheless filed a motion for summary disposition as to several subsections of Contention 3, which the Board declared to be moot following its resolution of Contention 3 on the merits. *Id.* at 7 n.35.

> parties. For these reasons, the Commission concludes that an oral hearing should be provided for in a Subpart L proceeding. . . .[214]

Prior to 2004, our rules of practice prescribed that hearings held under Subpart L — as this proceeding would have been — were to be informal "paper hearings," with oral presentations permitted only upon a determination by the presiding officer that such presentations were necessary to create an adequate record for decision.[215] Our 2004 changes to the rules, however, expressly did away with this format in its entirety, shifting the focus of Subpart L to oral hearings.[216] Although the Board has broad authority to regulate the conduct of the proceeding before it, it is beyond the Board's discretion to abrogate our oral hearing rule entirely, and proceed as though our prior rules were still in effect.

The Board conceded that a hearing was required in this case, but nonetheless attempted to justify its decision to eschew a hearing on the merits of the admitted environmental contentions, stating:

> Although the Commission's Subpart L regulations appear to require a mandatory oral hearing, the regulations also provide that "[p]articipants and witnesses will be questioned orally or in writing and only by the presiding officer." Because the Board has concluded from the parties' filings that it has no critical factual questions for the parties and that convening such a session cannot be justified, the Board informed the parties that it would not hold an oral hearing in Hawaii."[217]

Nothing in the record reveals a desire on the part of the parties to this proceeding to hold the hearing via written submissions. In fact, the history of the proceeding shows that all — including the Board — anticipated an oral hearing.[218] In addition, as a practical matter, it is evident that the Board would have benefited from evidentiary presentations, at least on the issues raised by the parties on

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[214] Final Rule: "Changes to Adjudicatory Process," 69 Fed. Reg. 2182, 2213 (Jan. 14, 2004) (2004 Final Rule).

[215] *See* 10 C.F.R. § 2.1233 (2001).

[216] *See* 2004 Final Rule, 69 Fed. Reg. at 2213.

[217] Initial Decision at 9.

[218] The Board requested on three separate occasions that the parties set aside time for an oral hearing. *See* Order (Submission of a Joint Proposed Schedule) (Apr. 29, 2008) (unpublished), at 1 (directing counsel to provide possible dates for oral hearing); Order (Scheduling Order) (July 17, 2008), at 6 (unpublished) ("a subsequent Order will be issued that sets the date of the Oral Hearing."); Order (Directing parties to Submit Scheduling Information for Hearing) (Aug. 7, 2008), at 1 (unpublished) (ordering parties to provide dates in January, February, and March 2009 when counsel and witnesses would not be available for a hearing); Order (Ruling on Intervenor's Motion to Strike Testimony, Releasing Previously Reserved Hearing Dates, and Directing Parties to Submit Scheduling Information for Hearing), at 3 (Dec. 4, 2008) (unpublished) (directing parties to provide dates in May, June, and July 2009 when counsel and witnesses would not be available for a hearing).

appeal. As a consequence of the Board's decision to forego an oral hearing, the adjudicatory record was left muddled and incomplete — a result that likely would have been rectified by an evidentiary hearing. We therefore direct the Board, as it moves forward in this proceeding with respect to its resolution of Amended Contention 3, to conform to our Subpart L rules and hold a hearing prior to its final decision on the merits of the remaining issues.

This proceeding has been before the agency for 5 years, and its timely resolution is paramount. As discussed above, we are compelled to direct further action in this case, including consideration of Amended Contention 3, as limited and admitted today, at an evidentiary hearing. We expect the Board to expeditiously implement this directive. To that end, as an exercise of our inherent supervisory authority over adjudicatory proceedings,[219] we direct the Board to provide us with a status report outlining the Board's timetable for resolving all pending matters. The Board should provide this status report no later than August 9, 2010.

III. CONCLUSION

For the foregoing reasons, we *grant* the Staff petition for review in part and *deny* it in part, and *deny* the Pa'ina petition for review. We *admit* Amended Contention 3, and *remand* this contention to the Board for further consideration consistent with today's decision. We *affirm* the Board's decision to require the Staff to undertake additional consideration, in connection with Contention 4, of the e-beam irradiator technology and of alternative sites, consistent with this decision. We *affirm* the Board's decision to require a brief period for written public comment on the amended or supplemental EA. We *deny* Pa'ina's request to reinstate the categorical exclusion for its proposed irradiator. Finally, we *direct* the Board, pursuant to our inherent supervisory authority over adjudicatory proceedings, to hold a hearing prior to its final decision on the merits of the contentions that remain, as discussed herein.

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[219] *See, e.g., Oyster Creek,* 69 NRC at 284 (citing *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-3, 31 NRC 219, 229 (1990); *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516-17 (1980)).

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of July 2010.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of **Docket Nos. 50-247-LR**
50-286-LR

ENTERGY NUCLEAR
OPERATIONS, INC.
(Indian Point, Units 2 and 3) **July 8, 2010**

The Commission addre98sses a certified question by the Atomic Safety and Licensing Board on the admissibility of proposed contentions involving the Waste Confidence Rule.

WASTE CONFIDENCE RULE

Challenges to the Waste Confidence Rule (10 C.F.R. § 51.23) must be made in the context of a rulemaking, not in the context of an adjudicative proceeding.

CONTENTIONS, ADMISSIBILITY

Under longstanding NRC policy, licensing boards should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission.

MEMORANDUM AND ORDER

Before us is a question certified by the Atomic Safety and Licensing Board in this license renewal proceeding.[1] The Board requests guidance on how to respond to a motion by intervenor Hudson River Sloop Clearwater, Inc. (Clearwater). Clearwater seeks leave to file two new contentions, a safety contention under the Atomic Entergy Act (AEA) and an environmental contention under the National Environmental Policy Act (NEPA).[2] Both proposed contentions raise issues involving potential impacts of long-term spent fuel storage at reactor sites, either in spent fuel pools or in dry casks.[3]

"In the area of waste storage, the Commission largely has chosen to proceed generically" through the rulemaking process — that is, the Waste Confidence Rule, codified at 10 C.F.R. § 51.23 — instead of litigating issues case-by-case in adjudicatory proceedings.[4] As the Board's order highlights, it has been the "clear guidance, followed by all Boards, . . . that challenges to the Waste Confidence Rule must be made in the context of a rulemaking, not in the context of an adjudicative proceeding."[5] The Board describes the history of the NRC's waste confidence findings and its Waste Confidence Rule.[6] It further outlines the NRC's more recent rulemaking actions to update the waste confidence findings and rule.[7] The Board's key inquiry appears to be whether there is an "'ongoing rulemaking' that would preclude . . . consideration" of Clearwater's proposed contentions regarding long-term onsite spent fuel storage.[8] Contrary to Clearwater's apparent understanding,[9] there has been no halt in the rulemaking effort to update the Waste

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[1] *See* Memorandum and Order (Certification to the Commission of a Question Relating to the Continued Viability of 10 C.F.R. § 51.23(b) Arising from Clearwater's Motion for Leave to Admit New Contentions) (Feb. 12, 2010) (Board Certification Order). *See also* 10 C.F.R. §§ 2.319(*l*), 2.341(f)(1).

[2] *See* Hudson River Sloop Clearwater, Inc.'s Motion for Leave to Add a New Contention Based upon New Information (Oct. 26, 2009) (corrected version filed Nov. 6, 2009) (Clearwater Motion). The AEA contention is designated SC-1 and the NEPA Contention EC-7.

[3] *See id.* at 14-15.

[4] *See Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343 (1999) (Oconee); *see also Kelley v. Selin,* 42 F.3d 1501 (6th Cir. 1995) (regarding generic rulemaking to assess dry cask design).

[5] *See* Board Certification Order at 22.

[6] *See id.* at 18-19.

[7] *See id.* at 19-22.

[8] *See id.* at 26.

[9] Clearwater's motion and proposed contentions are largely based on its understanding of Commissioner comments made on Notation Votes on a proposed update of the waste confidence findings and rule. *See* Clearwater Motion at 2-4, 16-17, 34-35, 38, 40. Notation Votes do not constitute — nor did they here even suggest — final Commission action on waste confidence.

Confidence Rule. The waste confidence update remains under active review and is ongoing.

Under longstanding NRC policy, licensing boards "should not accept in individual license proceedings contentions which are (or are about to become) the subject of general rulemaking by the Commission."[10] The Commission has stated that "it would be counterproductive (and contrary to longstanding agency policy) to initiate litigation on an issue that by all accounts very soon will be resolved generically."[11] The current waste confidence rulemaking already is examining the safety and environmental impacts of onsite storage of spent fuel in spent fuel pools or dry casks pending ultimate offsite disposal, rendering unnecessary and wasteful the litigation of similar issues in individual adjudicatory proceedings. If petitioners or intervenors "are dissatisfied with our generic approach to the problem, their remedy lies in the rulemaking process, not in this adjudication."[12] We are continuing our deliberations on the waste confidence update, and in any event will not conclude action on the Indian Point license renewal application until the rulemaking is resolved.

Given the pending rulemaking update on waste confidence, we direct the Board to deny admission of Clearwater's contentions SC-1 and EC-7.

IT IS SO ORDERED.[13]

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 8th day of July 2010.

[10] *See Oconee,* CLI-99-11, 49 NRC at 345 (quoting *Potomac Electric Power Co.* (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974)).

[11] *See id.* at 346.

[12] *See id.* at 345.

[13] Commissioner Apostolakis did not participate in this matter.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael M. Gibson, Chairman
Dr. Gary S. Arnold
Dr. Randall J. Charbeneau

In the Matter of **Docket Nos. 52-12-COL**
52-13-COL
(ASLBP No. 09-885-08-COL-BD01)

SOUTH TEXAS PROJECT NUCLEAR OPERATING COMPANY
(South Texas Project, Units 3 and 4)

July 2, 2010

In this 10 C.F.R. Part 52 proceeding regarding the application of South Texas Project Nuclear Operating Company (STP) for a combined license (COL) to construct and operate two new nuclear units, using the Advanced Boiling Water Reactor (ABWR) certified design, at its site in Matagorda County, Texas, ruling on motions by Intervenors seeking to admit nine new contentions and to amend two other contentions, and by STP seeking to dismiss previously admitted contentions, the Licensing Board (1) grants Applicant's motion to dismiss Contentions 8, 9, 14, 16, and 21; (2) denies Intervenors' motion to amend Contentions 8 and 21; (3) denies Intervenors' motion to admit Contentions CL-1, MCR-1, MCR-2, MCR-3, MCR-4, and MCR-5; and (4) grants Intervenors' motion to admit Contentions CL-2, CL-3, and CL-4, reformulating them as Contention CL-2.

RULES OF PRACTICE: CONTENTION OF OMISSION

The Commission has recognized that a contention challenging an applicant's

ER can be "'superseded by the subsequent issuance of licensing-related documents' — whether a draft EIS or an applicant's response to a request for additional information." *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382 (2002) (quoting *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1050 (1983)). In such situations, the Commission has distinguished between "contentions that merely allege an 'omission' of information and those that challenge substantively and specifically how particular information has been discussed in a license application." *Id.* at 382-83. For a contention of omission, if "the information is later supplied by the applicant or considered by the Staff in a draft EIS, the contention is moot [and] Intervenors must timely file a new or amended contention . . . in order to raise specific challenges regarding the new information." *Id.* at 383. Were it otherwise, parties could transform the original contention of omission into several new claims and circumvent the contention admissibility standards of 10 C.F.R. § 2.309(f)(1). *McGuire/Catawba,* CLI-02-28, 56 NRC at 383.

NEPA: STANDARD OF REVIEW

Generally, NEPA imposes procedural requirements on the NRC to take a "hard look" at the environmental impacts of building and operating a nuclear reactor. *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005). The NEPA "hard look" doctrine is subject to a "rule of reason," *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 258-59 (2006), that the Commission has interpreted as obligating the agency to consider "all reasonable alternatives" to the proposed action. 10 C.F.R. Part 51, Subpart A, App. A. The alternatives analysis is the "heart of the environmental impact statement." *Id.* However, the agency is not required to consider every imaginable alternative to a proposed action; rather, it only need evaluate reasonable alternatives. *See, e.g., Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991).

NEPA: STANDARD OF REVIEW

The agency has broad discretion to determine how thoroughly it needs to analyze a particular subject for NEPA compliance. *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 103 (1998). For example, the Commission has held that where impacts are "remote and speculative" or "inconsequentially small," they need not be examined. *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989) (citing *Limerick Ecology Action, Inc. v. NRC,* 869 F.2d 719,

739 (3d Cir. 1989)), *vacated on other grounds,* CLI-90-4, 31 NRC 333 (1990). In the Commission's estimation, the agency can dispense with an examination of these less significant impacts because NEPA requires only an estimate of anticipated, but not unduly speculative, impacts. *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005). Finally, in the Commission's view, because issuing a license involves oversight of a private project, rather than a federally sponsored project, the agency is entitled to give the applicant's preferences substantial weight when considering project design alternatives. *See, e.g., Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001) (citing *Citizens Against Burlington, Inc. v. Busey,* 938 F.2d 190, 197 (D.C. Cir. 1991)).

RULES OF PRACTICE: CHALLENGING COMMISSION RULES

Where an Intervenor challenges an issue already addressed in the Final Safety Evaluation Report (FSER) for the ABWR Design Control Document (DCD), the issue is closed to Licensing Boards as an impermissible attack on the ABWR certified design, as codified in 10 C.F.R. Part 52, Appendix A. *See* 10 C.F.R. § 2.335(a) ("no rule or regulation of the Commission . . . concerning the licensing of production and utilization facilities . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding"); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Units 2 and 3), LBP-01-10, 53 NRC 273, 286-87 (2001).

CONTENTION ADMISSIBILITY: SCOPE OF PROCEEDING

Under NEPA, an agency must consider alternatives to the proposed action. 42 U.S.C. § 4332(2)(C)(iii). In the NRC licensing context, 10 C.F.R. § 51.45 requires an applicant's ER to discuss alternatives. 10 C.F.R. § 51.45(b)(3). The Commission has stated that severe accident mitigation alternatives (SAMA) analyses "are rooted in a cost-benefit assessment" and that the purpose of the assessment is to identify plant changes whose costs would be less than their benefit (i.e., the "potential for significantly improving severe accident safety performance"). *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 5 (2002). Thus, challenges to a severe accident mitigation design alterative (SAMDA) analysis, which is a subset of SAMA analysis, are within the scope of a COL proceeding.

CONTENTION ADMISSIBILITY: SUFFICIENT SUPPORT

Section 2.309(f)(1)(v) of 10 C.F.R. requires that contentions be supported by

alleged facts or expert opinion. This 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." *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-09-4, 69 NRC 170, 194-95 (2009) (quoting *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 356 (2006) (internal quotations omitted)).

CONTENTION ADMISSIBILITY: SCOPE OF PROCEEDING

Section 521(c)(2) of the Clean Water Act prohibits an agency such as the NRC from using NEPA to impose additional effluent limitations on an applicant's wastewater discharges to surface waters, such as the Main Cooling Reservoir. 33 U.S.C. § 1371(c)(2). That section provides that nothing in NEPA shall be deemed to "authorize any such agency to impose, as a condition precedent to the issuance of any license or permit, any effluent limitation other than any such limitation established pursuant to this chapter." Certainly, the Clean Water Act does not authorize regulation of discharges to groundwater, *Exxon Corp. v. Train,* 554 F.2d 1310, 1312 (5th Cir. 1977), and so the Applicant's ER must address those discharges to groundwater. Still, the provisions of the Texas Pollutant Discharge Elimination System (TPDES) permit cannot be adjudicated in this forum — responsibility for the terms and conditions of that TPDES permit lie with the State of Texas and the U.S. Environmental Protection Agency.

MEMORANDUM AND ORDER

(Rulings on Motions to Dismiss Contentions 8, 9, 14, 16, 21; Amended Contentions 8 and 21; New Colocation Contentions; and New Main Cooling Reservoir Contentions)

This proceeding concerns the application of South Texas Project Nuclear Operating Company ("STP" or "Applicant") for combined licenses ("COL") under 10 C.F.R. Part 52 to construct and to operate two nuclear reactor units near Bay City, Texas.[1] On September 20, 2007, the Applicant submitted its COL application for proposed STP Units 3 and 4 at its site that currently houses two existing reactors, STP Units 1 and 2.[2] Following the Nuclear Regulatory Commission ("NRC") publication of a notice of hearing and opportunity to

[1] South Texas Project Nuclear Operating Company; Notice of Receipt and Availability of Application for a Combined License, 72 Fed. Reg. 60,394 (Oct. 24, 2007).

[2] *Id.*

petition for leave to intervene in this matter,[3] Intervenors[4] jointly filed a petition to intervene and request for hearing, challenging several aspects of the Applicant's combined license application ("COLA") with 28 contentions.[5] In two separate opinions, issued August 27, 2009, and September 29, 2009, we ruled that Intervenors had standing to intervene in this proceeding and admitted portions of five of their environmental and safety contentions: Contentions 8, 9, 14, 16, and 21.[6] In the instant ruling, we resolve the Applicant's motions to dismiss each of those contentions, as well as Intervenors' motions to amend Contentions 8 and 21. As discussed below, the Applicant has cured the omissions in its Environmental Report ("ER") that formed the basis for all of the previously-admitted contentions. Contentions 8, 9, 14, 16, and 21 are now dismissed. Amended Contentions 8 and 21 are not admissible. Also as discussed below, we admit in part Intervenors' newly proffered Contentions CL-2, CL-3, and CL-4, which we have combined into one new contention (CL-2). Admitted Contention CL-2 involves replacement power costs associated with the shutdown of multiple units at the STP site. The remaining newly proffered contentions are inadmissible.

I. BACKGROUND

In our September 29, 2009 Order, we admitted Contentions 8, 9, 14, and 16 to address various omissions from the Applicant's ER.[7] Contention 8 was narrowed and admitted to allege that the Applicant's ER failed to address the environmental impacts associated with the increase in concentration of radionuclides in the Main Cooling Reservoir ("MCR") that would be attributable to the operation of proposed STP Units 3 and 4.[8] Contention 9 claimed that the ER failed to predict or evaluate the effects of increasing groundwater tritium concentrations.[9] Contention 14 was admitted insofar as it complains that the ER failed to analyze adequately the environmental impacts of unregulated seepage from the MCR into adjacent shallow groundwater.[10] Contention 16 argued that the ER did not consider the environmental impact of the possible withdrawal of groundwater in excess of

[3] South Texas Project Nuclear Operating Company Application for the South Texas Project Units 3 and 4; Notice of Order, Hearing, and Opportunity to Petition for Leave to Intervene, 74 Fed. Reg. 7934 (Feb. 20, 2009).

[4] Intervenors are the Sustainable Energy and Economic Development Coalition ("SEED"), the South Texas Association for Responsible Energy, and Public Citizen.

[5] Petition for Intervention and Request for Hearing (Apr. 21, 2009) [hereinafter Petition].

[6] LBP-09-21, 70 NRC 581, 588 (2009); LBP-09-25, 70 NRC 867, 871 (2009).

[7] LBP-09-25, 70 NRC at 896.

[8] *Id.* at 875.

[9] *Id.* at 877.

[10] *Id.* at 890.

that authorized by the Applicant's current permits.[11] In a separate Order, we admitted Contention 21, which asserted that the Applicant's ER failed to address the potential impacts of a radiological incident at existing STP Units 1 and 2 on the operations of the proposed STP Units.[12]

Shortly thereafter, the Applicant undertook several actions to address these alleged omissions. On October 1, 2009, the Applicant filed with the Board a notification and copy of a response to NRC Staff Requests for Additional Information ("RAI") related to Contention 16.[13] Asserting that this information renders Contention 16 moot, on October 8, 2009, the Applicant moved to dismiss Contention 16.[14] Then, on November 11, 2009, the Applicant filed with the Board a notification of planned revisions to the ER to add a new section 7.5S to cure the omission that had formed the basis for Contention 21.[15] Likewise, on November 12, 2009, the Applicant filed with the Board a notification of planned revisions to ER §§ 2.3.1, 5.2, and 5.4 to cure the omissions that had formed the basis for Contentions 8, 9, and 14.[16] On November 30, 2009, in separate motions, the Applicant sought the dismissal of Contention 21[17] and of Contentions 8, 9, and 14, as moot.[18]

Claiming the Applicant had not cured the omissions in its ER, Intervenors opposed all three motions to dismiss and moved to modify Contentions 8 and 21 as well.[19] In addition, Intervenors separately filed nine new contentions related to the Applicant's proposed revisions to the ER. Five of these new contentions

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[11] *Id.* at 896.

[12] LBP-09-21, 70 NRC at 619-20.

[13] *See* Notification of Filing Related to Contention 16, Letter from Steven P. Frantz, Counsel for STP Nuclear Operating Company, to the Board at 1-2 (Oct. 1, 2009).

[14] *See* Applicant's Motion to Dismiss Contention 16 as Moot (Oct. 8, 2009) [hereinafter STP Motion to Dismiss 16].

[15] *See* Notification of Filing Related to Contention 21, Letter from Stephen J. Burdick, Counsel for STP Nuclear Operating Company, to the Board at 1 (Nov. 11, 2009).

[16] *See* Notification of Filing Related to Contentions 8, 9, and 14, Letter from Stephen J. Burdick, Counsel for STP Nuclear Operating Company, to the Board at 1 (Nov. 12, 2009).

[17] *See* Applicant's Motion to Dismiss Contention 21 as Moot (Nov. 30, 2009) [hereinafter Applicant's Motion to Dismiss 21].

[18] *See* Applicant's Motion to Dismiss Contentions 8, 9, and 14 as Moot (Nov. 30, 2009) [hereinafter Applicant's Motion to Dismiss 8, 9, 14].

[19] *See* Intervenors' Response to Applicant's Motion to Dismiss Contention 16 as Moot (Oct. 15, 2009) [hereinafter Intervenors' Response to 16]; Intervenors' Response to Applicant's Motion to Dismiss Contention 21 as Moot (Dec. 14, 2009) [hereinafter Intervenors' Response to 21]; Intervenors' Response to Applicant's Motion to Dismiss Contentions 8, 9, 14 as Moot (Dec. 14, 2009) [hereinafter Intervenors' Response to 8, 9, 14].

concern the Main Cooling Reservoir ("MCR Contentions"),[20] while the remaining four are colocation contentions that concern the proximity of proposed STP Units 3 and 4 to existing STP Units 1 and 2 ("CL Contentions").[21] The Applicant and NRC Staff oppose all nine of these new contentions.[22]

II. LEGAL STANDARDS

A. Timeliness

Our Initial Scheduling Order directs Intervenors, when filing new or amended contentions, to move for leave to file a timely new or amended contention under 10 C.F.R. § 2.309(f)(2), or for leave to file an untimely new or amended contention under 10 C.F.R. § 2.309(c).[23] If Intervenors are uncertain about the timeliness of new or amended contentions, the Scheduling Order directs them to move for leave pursuant to both 10 C.F.R. § 2.309(c) and (f)(2).[24] Under 10 C.F.R. § 2.309(f)(2), new or amended contentions filed after the initial deadline may be admitted "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;
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> (ii) The information upon which the amended or new contention is based is materially different than information previously available; and
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> (iii) The amended or new contention has been submitted in a timely fashion based on the availability of the subsequent information."[25]

With regard to the third criterion, this Board has stated that, for this proceeding, a contention based on new information will be considered timely if it is filed

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[20] *See* Intervenors' Contentions Regarding Applicant's Proposed Revision to Environmental Report Sections 2.3.1, 5.2, and 5.4 and Request for Hearing (Dec. 23, 2009) [hereinafter Intervenors' MCR Contentions].

[21] *See* Intervenors' Contentions Regarding Applicant's Proposed Revision to Environmental Report Section 7.5S and Request for Hearing (Dec. 22, 2009) [hereinafter Intervenors' CL Contentions].

[22] *See* Applicant's Answer Opposing New and Revised Contentions Regarding Environmental Report Section 7.5S (Jan. 22, 2010) at 2 [hereinafter Applicant's Answer to CL Contentions]; NRC Staff's Answer to the Intervenors' Amended and New Accident Contentions (Jan. 22, 2010) at 1 [hereinafter NRC Staff's Answer to CL Contentions]; Applicant's Answer Opposing New and Revised Contentions Regarding the Main Cooling Reservoir (Jan. 25, 2010) at 2 [hereinafter Applicant's Answer to MCR Contentions]; NRC Staff's Answer to Intervenors' Amended and MCR New Contentions (Jan. 25, 2010) at 1 [hereinafter NRC Staff's Answer to MCR Contentions].

[23] Licensing Board Order (Initial Scheduling Order) (Oct. 20, 2009) at 8 (unpublished) [hereinafter Scheduling Order].

[24] *Id.*

[25] 10 C.F.R. § 2.309(f)(2).

within 30 days of the availability of the new information.[26] A number of licensing boards have recognized that if a contention meets the 10 C.F.R. § 2.309(f)(2) criteria, it is timely and the intervenor proffering the contention need not also make a showing under 10 C.F.R. § 2.309(c).[27] However, at the Board's discretion, nontimely contentions may also be admitted upon a balancing of eight factors.[28]

B. Contentions of Omission

The Commission has recognized that a contention challenging an applicant's ER can be "'superseded by the subsequent issuance of licensing-related documents' — whether a draft EIS or an applicant's response to a request for additional information."[29] In such situations, the Commission has distinguished between "contentions that merely allege an 'omission' of information and those

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[26] *See* Scheduling Order at 8.

[27] *See, e.g., Shaw AREVA MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 210 n.95 (2007); *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 265 n.5 (2007); *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 572-74 (2006); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-16, 63 NRC 737, 744-45 & n.12 (2006); *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-05-32, 62 NRC 813, 821 (2005). NRC Staff, in its answer to the Intervenors' new and amended MCR Contentions, explains its view on the interplay between these two provisions, stating that 10 C.F.R. § 2.309(c) governs the admission of contentions that *do not* satisfy 10 C.F.R. § 2.309(f)(2). *See* NRC Staff's Answer to MCR Contentions at 5. We agree.

[28] The eight factors are:

> (i) Good cause, if any, for the failure to file on time;
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> (ii) The nature of the requestor's/petitioner's right under the [Atomic Energy Act] to be made a party to the proceeding;
>
> (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;
>
> (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
>
> (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;
>
> (vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;
>
> (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
>
> (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

10 C.F.R. § 2.309(c).

[29] *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382 (2002) (quoting *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1050 (1983).

that challenge substantively and specifically how particular information has been discussed in a license application."[30] For a contention of omission, if "the information is later supplied by the applicant or considered by the Staff in a draft EIS, the contention is moot [and] Intervenors must timely file a new or amended contention . . . in order to raise specific challenges regarding the new information."[31] Were it otherwise, parties could transform the original contention of omission into several new claims and circumvent the contention admissibility standards of 10 C.F.R. § 2.309(f)(1).[32] Thus, because Intervenors' Contentions 8, 9, 14, 16, and 21, as admitted, challenge various omissions from the Applicant's original ER,[33] they are subject to dismissal for mootness to the extent the Applicant's ER revisions and RAI responses supply the omitted information.

C. Contention Admissibility

Contentions must also meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1). To admit a contention for hearing, Intervenors must: (i) provide a specific statement of the issue of law or facts in dispute; (ii) provide a brief explanation of the basis for the contention; (iii) show that the contention is within the scope of the proceeding; (iv) demonstrate that the contention is material to the findings that the NRC must make in order to support the action involved in the proceeding; (v) provide a statement of the alleged facts or expert opinion to support the contention; and (vi) allege sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact.[34] Intervenors' amended Contentions 8 and 21, as well as all nine newly proffered contentions, must meet these six admissibility requirements.

D. NEPA Requirements

Intervenors' newly proffered and amended contentions concern the National Environmental Policy Act of 1969 ("NEPA") and NRC regulations incorporating

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[30] *Id.* at 382-83.

[31] *Id.* at 383. *See also AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-08-12, 68 NRC 5, 21 (2008) ("As with all contentions of omission, if the applicant supplies the missing information — or, as relevant here, if the applicant performs the omitted analysis — the contention is moot."); *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-08-2, 67 NRC 54, 63-64 (2008) (where intervenors "have not sought to amend [their contention] as admitted, to the degree the contention is one of omission, it is subject to dismissal in connection with those aspects for which it is appropriately established the Staff [draft environmental impact statement] provides any purported missing analysis or discussion").

[32] *McGuire/Catawba,* CLI-02-28, 56 NRC at 383.

[33] *See* LBP-09-21, 70 NRC at 619-20; LBP-09-25, 70 NRC at 896.

[34] 10 C.F.R. § 2.309(f)(1)(i)-(vi).

the agency's responsibilities vis-à-vis NEPA.[35] Generally, NEPA imposes procedural requirements on the NRC to take a "hard look" at the environmental impacts of building and operating a nuclear reactor.[36] The NEPA "hard look" doctrine is subject to a "rule of reason"[37] that the Commission has interpreted as obligating the agency to consider "all reasonable alternatives" to the proposed action.[38] The alternatives analysis is the "heart of the environmental impact statement."[39] However, the agency is not required to consider every imaginable alternative to a proposed action; rather, it only need evaluate reasonable alternatives.[40]

In addition, the agency has broad discretion to determine how thoroughly it needs to analyze a particular subject for NEPA compliance.[41] For example, the Commission has held that where impacts are "remote and speculative" or "inconsequentially small," they need not be examined.[42] In the Commission's estimation, the agency can dispense with an examination of these less significant impacts because NEPA requires only an estimate of anticipated, but not unduly speculative, impacts.[43] Finally, in the Commission's view, because issuing a license involves oversight of a private project, rather than a federally sponsored project, the agency is entitled to give the applicant's preferences substantial weight when considering project design alternatives.[44]

III. DECISION

A. Motion to Dismiss Contention 21 and Amended Contention 21

Contention 21, as admitted by this Board, states:

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[35] *See* 42 U.S.C. §§ 4321 *et seq.*; 10 C.F.R. Part 51.

[36] *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005).

[37] *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 258-59 (2006).

[38] 10 C.F.R. Part 51, Subpart A, App. A.

[39] *Id.*

[40] *See, e.g., Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991).

[41] *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 103 (1998).

[42] *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989) (citing *Limerick Ecology Action, Inc. v. NRC,* 869 F.2d 719, 739 (3d Cir. 1989)), *vacated on other grounds,* CLI-90-4, 31 NRC 333 (1990).

[43] *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005).

[44] *See, e.g., Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001) (citing *Citizens Against Burlington, Inc. v. Busey,* 938 F.2d 190, 197 (D.C. Cir. 1991)).

> Impacts from severe radiological accident scenarios on the operation of other units at the STP site have not been considered in the Environmental Report.[45]

Contention 21 is a contention of omission alleging that the ER for STP Units 3 and 4 did not include required information about the environmental impacts of a radiological incident at existing STP Units 1 and 2 on proposed STP Units 3 and 4, or vice versa.[46] This contention was admitted to address the requirements outlined in an NRC guidance document, Standard Review Plans for Environmental Reviews for Nuclear Power Plants, NUREG-1555.[47] That document counsels applicants to address potential causes of severe accidents from contributors that are external to the plant.[48]

In response to Contention 21, on November 11, 2009, the Applicant notified this Board that it had revised its ER[49] to add ER § 7.5S, "Evaluation of Impacts of Severe Accidents on Safe Shutdown of Other Units."[50] The Applicant maintains that this revised section[51] addresses the potential environmental impacts of a radiological incident at existing STP Units 1 or 2 on proposed STP Units 3 or 4 (and the effects of an accident at proposed STP Units 3 or 4 on existing STP Units 1 or 2) and so moots Contention 21.[52] Consequently, the Applicant moved to dismiss Contention 21.[53] Intervenors oppose the Applicant's motion to dismiss Contention 21, claiming that new ER § 7.5S addresses neither how large releases of radiation would interfere with safe shutdown nor how those releases would affect the environmental and economic impacts on colocated units.[54] Intervenors claim that 10 C.F.R. §§ 50.150 and 50.54(hh)(2) require the Applicant to consider these impacts because the regulations "postulate accident scenarios that would likely include large radiation releases."[55]

As noted in Section II.B, *supra,* Commission precedent dictates that a contention of omission be disposed of or modified when that contention is superseded

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[45] LBP-09-21, 70 NRC at 617.

[46] *Id.* at 618-20.

[47] *Id.* at 620.

[48] *Id.*

[49] Letter from Stephen Burdick, STPNOC Counsel, to Licensing Board, Notification of Filing Related to Contention 21 (Nov. 11, 2009).

[50] *Id.,* Attach., Letter from Scott Head, Manager, Regulatory Affairs, STP Units 3 & 4, to NRC, Proposed Revision to Environmental Report (Nov. 10, 2009) [hereinafter ER Letter].

[51] ER Letter, Attach., ER § 7.5S.

[52] Applicant's Motion to Dismiss 21 at 1, 4.

[53] *Id.* NRC Staff agrees with the Applicant that Contention 21 is now moot and so should be dismissed. *See id.* at 6.

[54] Intervenors' Response to 21 at 3.

[55] *Id.*

by licensing-related documents such as amendments to the Applicant's ER.[56] Because new ER § 7.5S supplements the ER with information about the impacts of severe radiological accidents on nearby units, Contention 21 is moot, and the Applicant's motion to dismiss that contention is hereby granted.[57]

We turn now to the admissibility of Intervenors' amended Contention 21. Intervenors claim the Applicant's revised ER "does not discuss the impacts on safe shutdown in the absence of 'sufficient warning' [or] the implications for safe shutdown in the event of a large release."[58] Therefore, Intervenors request that Contention 21 be amended as follows:

> A) The Environmental Report is deficient because it fails to discuss how a large release of radiation from an affected unit(s) will impact safe shutdown at an unaffected unit(s).
>
> B) The Environmental Report is deficient because it assumes there will be sufficient warning of an accident at an affected unit to allow an unaffected unit(s) to complete safe shutdown.
>
> C) The Environmental Report is deficient because it assumes that a separation distance of 1500 feet is adequate to preclude impacts from fires and explosions originating from an affected unit on other co-located units.[59]

Parts B and C of amended Contention 21 suggest that Intervenors are questioning the adequacy of the information in new ER § 7.5S rather than asserting an omission of required information. We will consider the admissibility of the three proposed modifications in turn.

In amended Contention 21A, Intervenors assert that "[t]he consideration of the relative probabilities/frequencies of large releases is qualitatively different from consideration of their impacts."[60] Thus, Intervenors claim the ER should explain how a large release of radiation from an affected unit(s) will impact safe shutdown at another unit.[61]

The Applicant disagrees with Intervenors' characterization of new ER § 7.5S. Contrary to Intervenors' suggestion, the Applicant argues that 7.5S does evaluate large releases from severe accidents to determine whether the colocated units

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[56] *McGuire/Catawba,* CLI-02-28, 56 NRC at 382.

[57] In that regard, we note that while Intervenors' assertion that the information in new ER § 7.5S is insufficient or otherwise deficient might provide support for a new or amended contention, it does not provide a basis for denying the Applicant's motion to dismiss the current contention of omission.

[58] Intervenors' Response to 21 at 2.

[59] *Id.*

[60] *Id.*

[61] *Id.* at 3.

could be shut down safely.[62] In this regard, the Applicant cites ER §§ 7.5S.3 and .4, which evaluate the sufficiency of operator warning time and equipment design for safe shutdown.[63]

We conclude that Intervenors are incorrect in alleging in amended Contention 21A that the Applicant did not evaluate the potential effects on safe shutdown of colocated units after a large release of radiation. The Applicant correctly notes that ER § 7.5S.4 "evaluates the impact of large releases on co-located units and concludes that all equipment necessary to complete safe shutdown would operate as designed."[64] Additionally, ER § 7.5S.3 provides the very type of evaluation that amended Contention 21A seeks: it considers whether a severe accident at one unit could adversely impact safe shutdown of the other three units.[65] To the extent Intervenors argue that the Applicant is obliged to undertake a more extensive study of the impact of releases at one unit on another, Intervenors have failed to provide any legal or factual support for such a claim. Accordingly, amended Contention 21A fails to demonstrate a genuine, material dispute with the Applicant, as 10 C.F.R. § 2.309(f)(1)(vi) requires. Therefore, it is not admissible.

Amended Contention 21B alleges that the Applicant has made an erroneous assumption that there will be sufficient warning of an accident to allow for safe shutdown at unaffected units.[66] The Applicant responds that, quite to the contrary, it has made no such assumption, but instead has calculated the time needed for safe shutdown (3 hours) in ER § 7.5S.1.[67] Accordingly, the Applicant argues that new ER Section 7.5S.3 establishes that typical accident scenarios actually progress over a period of time longer than three hours.[68] Based on the warning period before a radiological release and the ability of the Applicant's equipment to support safe shutdown well within that time period, new ER § 7.5S asserts that the colocated units could be safely shut down, yielding a very low probability of a severe accident at one unit causing a simultaneous accident at any of the other units.[69] Intervenors do not dispute the substance or accuracy of the Applicant's calculations, nor do they cite any legal requirement obligating the Applicant to perform additional calculations. Because it raises no factual or legal dispute in

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[62] Applicant's Answer to CL Contentions at 27.

[63] *Id.* NRC Staff agrees with the Applicant's position and further asserts that amended Contention 21A fails to meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi), claiming that Intervenors must offer additional facts or expert opinions to dispute this portion of the Applicant's submittal. *See* NRC Staff's Answer to CL Contentions at 8-9.

[64] Applicant's Answer to CL Contentions at 27; ER Letter, Attach., ER § 7.5S at 5-6.

[65] Applicant's Answer to CL Contentions at 27; ER Letter, Attach., ER § 7.5S at 4-5.

[66] Intervenors' Response to 21 at 2.

[67] Applicant's Answer to CL Contentions at 28; ER Letter, Attach., ER § 7.5S at 2.

[68] Applicant's Answer to CL Contentions at 28; ER Letter, Attach., ER § 7.5S at 4-5.

[69] Applicant's Answer to CL Contentions at 28; ER Letter, Attach., ER § 7.5S at 4-5.

this regard, amended Contention 21B is inadmissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

In amended Contention 21C, Intervenors fault the Applicant's revised ER for assuming that a separation distance of 1500 feet is adequate to preclude impacts from fires and explosions on colocated units.[70] The Applicant maintains that ER § 7.5S does not state that the distance between the units obviates the need to consider fires and explosions.[71] Instead, the Applicant claims, the Final Safety Analysis Report ("FSAR") § 2.2S.3, which was incorporated by reference in the ER, evaluates potential accidents that could impact other units.[72] Moreover, the Applicant argues that these FSAR calculations produced a potential impact area for fires and explosions at Units 3 and 4, and 1500 feet was a conservative (i.e., safe) estimate of an acceptable distance for siting proposed STP Units 3 and 4 in proximity to existing STP Units 1 and 2.[73] Stated otherwise, the Applicant asserts, these calculations, not mere assumptions, establish that the new units will be located at a safe distance from the existing units.[74]

Examination of FSAR § 2.2S.3, incorporated by reference in the Applicant's ER, reveals that it does include a summary of this accident information, and that the Applicant's use of 1500 feet as an adequate buffer is the result of a calculation rather than an assumption.[75] Intervenors do not allege that the Applicant's calculation and use of 1500 feet as a buffer distance is inadequate or incorrect. Therefore, amended Contention 21C fails to satisfy 10 C.F.R. § 2.309(f)(1)(vi) because it does not demonstrate a genuine, material dispute with the Applicant.

We note that to buttress their argument in support of amended Contention 21, Intervenors also argue that new ER § 7.5S fails to consider the full spectrum of damage states.[76] In light of the fact that original Contention 21 was limited to design basis and severe accidents, this argument is outside the scope of the original contention and therefore can only be introduced as an amendment to the original contention. In any case, Intervenors have not identified any new information that forms the basis for their assertion that the impacts of safe shutdown should

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[70] Intervenors' Response to 21 at 2.

[71] Applicant's Answer to CL Contentions at 29.

[72] *Id.* NRC Staff agrees with the Applicant on this point. *See* NRC Staff's Answer to CL Contentions at 11.

[73] Applicant's Answer to CL Contentions at 29.

[74] *Id.*

[75] *See* STP Units 3 & 4 COLA, FSAR § 2.2S.3.1.1.4 (Rev. 3, Sept. 16, 2009) (ADAMS Accession No. ML092931242); ER Letter, Attach., ER § 7.5S at 1.

[76] Intervenors' Response to 21 at 4.

be considered under the full spectrum of damage states.[77] Accordingly, any such proposed modification would be untimely under 10 C.F.R. § 2.309(f)(2).

In summary, original Contention 21 is dismissed because the Applicant supplied the information it omitted from its original Application regarding the impacts of radiological accidents on other units in the ER. Intervenors' amended Contention 21 (A, B, and C) is inadmissible because it does not identify a genuine, material dispute with the Applicant about the new information that was provided to address the purported omissions in the ER.

B. Contention CL-1

Intervenors state in Contention CL-1:

> The STPNOC evaluation of the possible impacts of a severe accident at one of the STP units on the other STP units is inadequate.[78]

Intervenors have constructed their arguments in support of Contention CL-1 in four subparts, each with a separate issue statement. For ease of reference, the Board will address these arguments as Intervenors have stated them.

1. Contention CL-1, Part A

Intervenors state in Contention CL-1, Part A:

> The Amended ER § 7.5S.3 states that the time from general emergency warning until the first release of radiation was of sufficient duration in all ten accident scenarios to put unaffected units into stable long term decay heat removal condition. However, in Applicant's accident scenario eight the release occurred prior to bringing unaffected units into stable long-term decay heat removal condition. Therefore the proposed amendment to the ER is not adequately substantiated.[79]

In Part A of Contention CL-1, Intervenors claim that "the ER is not adequately substantiated" and allege that the Applicant's evaluation in amended ER § 7.5S.3 incorrectly states that for all ten accident scenarios, there would be sufficient

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[77] We note Intervenors' frequent requests for the Applicant to perform an analysis of various accident scenarios based on the "full spectrum of damage states." *See, e.g.,* LBP-10-2, 71 NRC 190 (discussed in slip op. at 19-32 of nonpublic version and redacted at 210 of public version) (2010). We remind Intervenors now, as we stated repeatedly in our January 29, 2010 Order, that the Applicant cannot be forced to perform an analysis of the full spectrum of damage states in the absence of a regulatory obligation to do so, which Intervenors have never established.

[78] Intervenors' CL Contentions at 3.

[79] *Id.* at 3-4; *see also* Tr. at 947-54.

time between the general emergency warning and the first release of radiation to enable unaffected units to enter stable long-term decay heat removal condition.[80] Intervenors assert that the Advanced Boiling Water Reactor ("ABWR")[81] Design Control Document ("ABWR DCD") specifies a time frame for radiological release in Case 8 of 2 hours, i.e., 1.2 hours after the declaration of a general emergency.[82] Intervenors assert this time frame in the ABWR DCD conflicts with ER § 7.5S, which states that 3 hours will be available for every internally initiated severe accident sequence defined in the ABWR DCD.[83]

Intervenors claim that because of this difference in time frames, the Applicant must evaluate environmental impacts on existing STP Units 1 and 2 that would result from a severe accident — involving early containment failure — at proposed STP Units 3 or 4.[84] Intervenors claim that the Applicant "must analyze the possibility that beyond design-basis radiological releases may reach the control rooms of the co-located units before those units can be put into stable configurations, either requiring the control rooms to be evacuated or operators to receive potentially life-threatening exposures."[85]

The Applicant asserts Contention CL-1 Part A would not require any changes to the conclusions in the ER, and so it is not admissible.[86] The Applicant cites a discussion in the ER, which indicates the frequency of Case 8 is "about twice in ten billion years" and argues that an event such as Case 8 is so remote and speculative that it does not require consideration under NEPA.[87] Therefore, the Applicant claims, CL-1 Part A fails to meet the materiality requirement of 10 C.F.R. § 2.309(f)(1)(iv).[88]

Additionally, according to the Applicant, even were it required to perform the analysis that Intervenors propose, it would make no difference because the Applicant's ER revisions include a scenario that assumes simultaneous severe accidents at all four STP reactor units.[89] Even under those aggravated conditions, with all

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[80] Intervenors' CL Contentions at 4.

[81] The Applicant intends to use the ABWR reactor design for proposed STP Units 3 and 4.

[82] Intervenors' CL Contentions at 5.

[83] *Id.*

[84] *Id.*

[85] *Id.; see also* Intervenors' Consolidated Response to NRC Staff's Answer to the Intervenors' New Accident Contentions and Applicant's Answer Opposing New Contentions Regarding Applicant's Environmental Report Section 7.5S (Jan. 29, 2010) at 2 [hereinafter Intervenors' CL Reply].

[86] Applicant's Answer to CL Contentions at 13; *see also* Tr. at 950-51.

[87] Applicant's Answer to CL Contentions at 12; *see also* Tr. at 950.

[88] Applicant's Answer to CL Contentions at 13.

[89] *Id.* at 12-13. NRC Staff supports the Applicant's argument regarding the absence of a genuine, material dispute in CL-1 Part A. *See* NRC Staff's Answer to CL Contentions at 15.

four units not safely shut down, the Applicant concludes that the environmental impacts would be small.[90]

For their part, Intervenors do not attempt to argue that the difference in time frames stated in the Applicant's ER revision would affect the Applicant's conclusions regarding colocation impacts. In fact, Intervenors do not even contest the Applicant's characterization of how improbable Case 8 is.[91] Nor have Intervenors challenged the Applicant's calculation that any impact resulting from a simultaneous accident at all four units (if they were not safely shut down) would be small.[92] Consequently, Intervenors fail to raise a genuine dispute regarding a material issue of law or fact in Contention CL-1 Part A, as required under 10 C.F.R. § 2.309(f)(1)(vi), making CL-1 Part A inadmissible.[93]

2. Contention CL-1, Part B

Intervenors state in Contention CL-1, Part B:

> The proposed amendments to the ER do not address the radiological impact of a

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[90] Applicant's Answer to CL Contentions at 12. NRC Staff agrees with the Applicant on this point, arguing that the radioactivity releases of an accident at all four units would be approximately four times the release from a single unit, and even if the environmental risk of such accident were multiplied by four, the cumulative environmental risk would still be insignificant. NRC Staff's Answer to CL Contentions at 14-15; *see also* Tr. at 949.

[91] *See* Applicant's Answer to CL Contentions at 12; *see supra* Section II.D; *New Jersey Department of Environmental Protection v. NRC,* 561 F.3d 132, 139, 141 (3d Cir. 2009) (Effects or impacts of risks that are too remote do not require a NEPA analysis. The scope of a NEPA analysis must be manageable; otherwise the agency "would 'expend considerable resources' on issues 'not otherwise relevant to [its] congressionally assigned functions' and 'resources may be spread so thin that agencies are unable adequately to pursue protection of the physical environment and natural resources.'"); *Limerick Ecology Action, Inc. v. NRC,* 869 F.2d 719, 739, 745 (3d Cir. 1989) (NEPA does not require consideration of remote and speculative risks, but there must be a finding that something is remote and speculative to preclude it from further analysis, and there must be support in the agency's record of decision to justify this finding); *San Luis Obispo Mothers for Peace v. NRC,* 751 F.2d 1287, 1300-01 (D.C. Cir. 1984) (Under NEPA's well-established "probabilistic rule of reason," an agency need not address remote and speculative environmental consequences, nor must it discuss in detail events it believes have an inconsequentially small probability of occurring).

[92] *See* Intervenors' CL Contentions at 4-5.

[93] According to the Commission, a dispute is not "material" unless: (1) it involves a significant inaccuracy or omission, *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005) (noting that licensing boards "do not sit to 'flyspeck' environmental documents or to add details or nuances"); and (2) resolution of the dispute could affect the outcome of the licensing proceeding. *See* 54 Fed. Reg. 33,168, 33,172 (Aug. 11, 1989); *see also Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 149 (2006).

> severe accident at an STP unit during shutdown, when the primary containment head is removed, on the other STP units.[94]

In Part B, Intervenors assert that the Applicant's amendment to ER § 7.5S failed to evaluate severe core damage events that might occur during shutdown of one of the units.[95] Intervenors assert that, although the ABWR DCD discusses large release frequency ("LRF"), it does not consider contributions from severe accidents during low power or shutdown operations.[96] Intervenors then argue that "more recent design certification PRAs [probabilistic risk assessments] have shown that such scenarios are significant and sometimes dominant contributors to LRF."[97]

Intervenors claim that the Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design, NUREG-1503, states that once the primary containment head of the ABWR reactor has been removed during shutdown for refueling, it cannot be readily repositioned to restore containment integrity.[98] Intervenors claim that under such conditions, there is likely to be an early release of radiation either because the open reactor coolant system will produce boiling or because of severe core damage.[99] Intervenors thus assert the ER should consider the environmental impacts of early large radiological releases that would occur during refueling outages. Intervenors claim that an early large radiological release during refueling outages is more likely to occur than the event the Applicant evaluated for environmental impacts, i.e., large radiological releases when the reactor is at full power.[100]

The Applicant asserts that Intervenors' claim in this regard is not timely because it concerns section 7.2 of the ER as the Applicant originally submitted it, not as it was revised.[101] The Applicant also argues that Intervenors' real

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[94] Intervenors' CL Contentions at 5; *see also* Tr. at 954-72.

[95] Intervenors' CL Contentions at 5.

[96] *Id.*

[97] *Id.* (Letter from Tom M. Tai, Sr. Project Manager, ABWR Projects Branch, Division of New Reactor Licensing, NRC Office of New Reactors, to Scott Head, Regulatory Affairs, STPNOC (June 17, 2009) at 5 (ADAMS Accession No. ML091671797)).

[98] *Id.*

[99] *Id.* at 5-6.

[100] *Id.* at 6; *see also* Intervenors' CL Reply at 8-10.

[101] Applicant's Answer to CL Contentions at 13; *see also* Tr. at 962. The Applicant also notes that Intervenors failed to address the late filing requirements in 10 C.F.R. § 2.309(c) and (f)(2). Applicant's Answer to CL Contentions at 13. NRC Staff agrees with the Applicant that CL-1 B is not timely. *See* NRC Staff's Answer to CL Contentions at 15-18; *see also* Tr. at 963-64. NRC Staff also argues that Intervenors' dispute raised in Part B is not specific to the Applicant's ER revisions, but instead addresses contributions from severe accidents during shutdown, an issue that was addressed in the Applicant's original ER. NRC Staff's Answer to CL Contentions at 16.

dispute is not with the Applicant's ER, but rather with the ABWR DCD itself — which determined that the probability of accidents during shutdown is low.[102] Because the Commission has adopted the ABWR DCD pursuant to its rulemaking process,[103] the Applicant asserts that such a challenge to the ABWR DCD is impermissible in this adjudicatory proceeding.[104]

The Applicant further argues that Intervenors have ignored a central message of the ABWR Final Safety Evaluation Report ("FSER") that is fatal to their claim: "[t]he chances of a core damage event occurring when in Modes 3, 4, or 5 [shutdown or refueling] is probably on the same order of magnitude as that of internal events occurring in Modes 1 and 2 [startup or operation]."[105] Accordingly, even were the Applicant's ER to evaluate an accident in one of the ABWRs on the STP site during shutdown and low power conditions, the Applicant maintains it would not affect the results of the evaluations of impacts and dose risks from an accident in either of the two proposed STP Units 3 and 4.[106]

Because the Commission addressed this issue in its FSER for the ABWR DCD and concluded that the impact and dose risk in the event of an accident at proposed STP Units 3 and 4 during shutdown is low,[107] the issue is closed to us as an impermissible attack on the ABWR certified design, as codified in 10 C.F.R. Part 52, Appendix A.[108] In addition, were we to construe CL-1 Part B as a challenge to the severe accident analysis itself, Intervenors' challenge is not timely because this was addressed in the Applicant's original ER, not in its recent revisions to the

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[102] Applicant's Answer to CL Contentions at 14; *see also* Tr. at 968-70.

[103] *See* 10 C.F.R. Part 52, Appendix A, § VI.

[104] Applicant's Answer to CL Contentions at 14; Tr. at 968-70.

[105] *See* Applicant's Answer to CL Contentions at 14 (citing Final Safety Evaluation Report Related to the Certification of the Advanced Boiling Water Reactor Design, Main Report, NUREG-1503, at 19-29 (July 1994) [hereinafter STP Attachment 4]). Moreover, the Applicant maintains that even if the risk of accidents at the units were conservatively increased by a factor of ten to account for risk of accidents during shutdown and low power conditions, there would be no impact on the conclusions in those sections of the ER. *Id.* at 15.

[106] *Id.* As written, Contention CL-1B did not clearly articulate whether it is solely concerned with the effects of an accident during shutdown at proposed STP Units 3 and 4, or if it also encompasses a shutdown at existing STP Units 1 and 2. At oral argument, NRC Staff and the Applicant argued that because Intervenors invoked the ABWR DCD and FSER in support of proposed STP Units 3 and 4, a fair reading of Contention CL-1B is to limit it to a challenge to the ER's consideration of an accident while proposed Units 3 and 4 are shut down. Tr. at 958.

[107] *See* STP Attachment 4.

[108] *See* 10 C.F.R. § 2.335(a) ("no rule or regulation of the Commission . . . concerning the licensing of production and utilization facilities . . . is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding"); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Units 2 and 3), LBP-01-10, 53 NRC 273, 286-87 (2001).

ER.[109] Intervenors have characterized this as a contention of omission, but have provided no reason it is required to be included in the ER. Therefore, Contention CL-1 Part B is not admissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(iii), (vi), and (f)(2).

3. Contention CL-1, Part C

Intervenors state in Contention CL-1 Part C:

> The amendments to the ER fail to evaluate the impact of a severe accident at one STP unit on the other units when the initiating event of the accident is an external event such as an earthquake, that could result in common-cause failures of systems at one or more of the other units, potentially extending the time necessary for operators to put the units into stable long-term decay heat removal configurations.[110]

In CL-1 Part C, Intervenors argue that the Applicant's ER considers severe accidents associated with internally initiated events at only one of the four colocated reactors, wrongly assuming that the initiator would not affect the other three reactors.[111] Intervenors maintain that externally initiated events, such as earthquakes, could result in common-cause failures of safety systems at multiple colocated units and, accordingly, that the Applicant erred in failing to consider and evaluate the impact of such accidents.[112]

Intervenors assert that under these externally initiated accident scenarios, involving multiple reactors, additional time "may" be required to restore operability of safety systems and achieve stable long-term configurations.[113] Thus, Intervenors conclude, there is an increased risk that stable shutdown would not be achieved and that core melt may occur at any one of the other reactor units.[114] Intervenors claim that such external events must be addressed in the ER because they are "large — possibly even dominant — contributors to the overall plant risk profile."[115] Intervenors then invoke the FSER for the ABWR DCD in asserting that

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[109] *See* STP Units 3 & 4 COLA, Environmental Report at 7.2 (Rev. 3, Sept. 16, 2009) (ADAMS Accession No. ML092931582) [hereinafter ER]. Intervenors have made no effort to justify this nontimely claim. *See* Scheduling Order at 8-9; 10 C.F.R. § 2.309(c), (f)(2).

[110] Intervenors' CL Contentions at 6; *see also* Tr. at 972-79.

[111] Intervenors' CL Contentions at 6.

[112] *Id.; see also* Tr. at 973, 975.

[113] Intervenors' CL Contentions at 6.

[114] *Id.*

[115] *Id.*

"'the estimate of ABWR risk could be one or possibly two orders of magnitude higher' than analyses that consider only internal events."[116]

The Applicant disputes Intervenors' claim that the ER only considers severe accidents associated with internally initiated events. To the contrary, the Applicant claims its revisions to the ER do evaluate external events and their impacts on one or more colocated units.[117]

We conclude that Intervenors have failed to raise a genuine dispute with the Applicant on a material issue of fact because the Applicant has, in fact, evaluated both accidents initiated by external events and a simultaneous accident impacting all four units on the STP site.[118] Moreover, the Applicant has concluded that even considering such accident scenarios, the cumulative environmental impacts would still be small.[119] Because the Applicant has evaluated the environmental impacts of a severe accident at all four STP reactor units, regardless of source, and concluded those impacts would be small, there is no omission — and so Intervenors' Contention CL-1 Part C fails to raise a genuine dispute with the Applicant regarding a material issue of law or fact, as 10 C.F.R. § 2.309(f)(1)(vi) requires.

4. Contention CL-1, Part D

Intervenors state in Contention CL-1 Part D:

> The amended ER fails to fully evaluate the impact of a chain-reaction that leads to more than one unit experiencing a severe accident.[120]

In Part D of Contention CL-1, Intervenors argue that the Applicant's ER "fails to fully evaluate the impact" of the simultaneous occurrence of a severe accident at all four reactors at the STP facility.[121] In particular, Intervenors claim that "the combined radiological consequences could have a significant impact on the ABWR severe accident mitigation design alternatives ("SAMDA") analysis."[122]

The Applicant argues that its ER revision does, in fact, evaluate the potential

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[116] *Id.* at 6-7.

[117] Applicant's Answer to CL Contentions at 16.

[118] Applicant's ER revision at 7.5S.3 evaluates accidents initiated by external events. ER Letter, Attach., ER § 7.5S at 4-5. Section 7.5S.6 evaluates environmental effects of a simultaneous accident at all four units. This evaluation encompasses accidents that result from either internal or external sources, as the impacts in both scenarios would be the same. *Id.* at 8.

[119] *Id.*

[120] Intervenors' CL Contentions at 7; *see also* Tr. at 979-81.

[121] Intervenors' CL Contentions at 7.

[122] *Id.; see also* Intervenors' CL Reply at 11.

for an accident to impact colocated units and concludes that a chain reaction among the STP units is not possible.[123] For this reason, the Applicant claims there is no need to perform a SAMDA analysis that assumes simultaneous accidents at all four units,[124] nor have Intervenors explained how such an analysis could impact the conclusions of the Applicant's current SAMDA analysis.[125] According to the Applicant, even were one to take the cost-to-risk ratio for one ABWR and multiply it by four (to account for severe accidents at all four units), the overall cost-risk value would remain well below the lowest cost SAMDA for an ABWR.[126] Accordingly, the Applicant concludes, performing Intervenors' requested analyses in CL-1 Part D would have no impact on the outcome of this proceeding,[127] and so there is no genuine dispute of material fact as required under 10 C.F.R. § 2.309(f)(1)(vi).[128]

We conclude that Contention CL-1 Part D is inadmissible because the Applicant's revisions to its ER have addressed the possibility of a chain reaction resulting from a simultaneous accident at all four units and concluded that such a chain reaction is impossible.[129] Intervenors neither challenge this conclusion nor demonstrate how the evaluation they request would affect the Applicant's conclusions in its ER. Accordingly, Intervenors have failed to raise a genuine dispute regarding a material issue of fact as required by 10 C.F.R. § 2.309(f)(1)(vi).

C. Contentions CL-2, CL-3, and CL-4

The Board considers Intervenors' remaining colocation contentions concurrently because all three address the Applicant's quantification of replacement power costs following a shutdown of multiple STP units. Contention CL-2 asserts that the Applicant's quantification of the probable replacement power costs "in the event of a forced shutdown of nuclear units on the STP site is inadequate and understates the replacement power costs which would be incurred."[130] In Contention CL-3, Intervenors argue the ER fails to account for the increase in replacement power costs that would result from the increase of Electric Reliability

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[123] Applicant's Answer to CL Contentions at 17.

[124] *Id.* at 17-18; *see also* Tr. at 980.

[125] Applicant's Answer to CL Contentions at 18.

[126] *Id.* at 18-19.

[127] *Id.* at 19.

[128] *Id.; see also* Tr. at 980-81. NRC Staff agrees that CL-1 Part D is inadmissible for similar reasons. NRC Staff points to Intervenors' claim that the current SAMDA analysis "could" be significantly impacted, and argues that such support is vague and speculative, and is thus insufficient to support contention admissibility. NRC Staff's Answer to CL Contentions at 21-22.

[129] ER Letter, Attach., ER § 7.5S at 8.

[130] Intervenors' CL Contentions at 7; *see also* Tr. at 981-92.

Council of Texas ("ERCOT") market prices due to reactor unit outage on the STP facility.[131] And finally, in Contention CL-4, Intervenors allege that the ER is inadequate because it does not evaluate or take into account "the impacts on ERCOT consumers and the disruptive impacts of potential price spikes and grid outages, which could be triggered by the simultaneous shutdown of all four units at STP."[132]

To support these colocation contentions, Intervenors rely on their expert, Clarence Johnson.[133] Johnson criticizes the ER for deriving its replacement power costs through modeling of various power pool costs from the 1990s.[134] Instead, Johnson maintains, the Applicant should have recognized the subsequent restructuring and deregulation of the electric industry by using ERCOT costs, which are higher than the costs the Applicant used.[135] Johnson performed such an analysis — using baseline ERCOT market prices — which resulted in calculations that indicate the ER underestimated replacement power costs by a factor of "3 to 3.8."[136] Intervenors also claim that the Applicant failed to account for the electricity price increase that would result from removal of multiple STP units from the ERCOT market.[137] Johnson submits that his calculations are a more accurate reflection of ERCOT market prices if STP units are removed from the ERCOT market.[138]

The Applicant opposes admission of Contentions CL-2 and CL-3 on the grounds that they are not timely raised because the replacement power costs in new ER § 7.5 use the same, NRC-prescribed approach that was used in ER § 7.3, which was available to Intervenors at the time of issuance of the notice of hearing for this proceeding.[139] We disagree with this reasoning. For the reasons set forth below, Intervenors' colocation contentions, to the extent they allege that the Applicant's replacement power costs are inaccurate when multiple STP Units are shut down, are timely.[140]

Contention CL-2 states that it concerns a forced shutdown of nuclear units (meaning more than one unit) on the STP site.[141] Contention CL-3 is also phrased

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[131] Intervenors' CL Contentions at 8; *see also* Tr. at 992-1004.

[132] Intervenors' CL Contentions at 9; *see also* Tr. at 1004-15.

[133] *See* Intervenors' CL Contentions, Attach., Clarence L. Johnson, Ph.D., Review of Replacement Power Costs for Unaffected Units at the STP Site (Dec. 21, 2009) [hereinafter Johnson Report].

[134] Johnson Report at 2.

[135] Intervenors' CL Contentions at 8; Johnson Report at 2-3.

[136] Johnson Report at 3-4.

[137] *Id.* at 4-5; *see also* Intervenors' CL Reply at 13.

[138] Johnson Report at 7.

[139] Applicant's Answer to CL Contentions at 20, 22.

[140] However, any allegations involving *only* STP Units 1 and 2 are outside the scope of this proceeding and cannot be considered by this Board, which is solely concerned with the licensing of proposed STP Units 3 and 4.

[141] Intervenors' CL Contentions at 7.

using the plural "units on the STP site."[142] We also note that all of the colocation contentions were formulated in response to the Applicant's supplement to its ER.[143] The Applicant intended that supplement to cure the omissions alleged in original Contention 21, which stated that the ER had not considered severe radiological accident scenarios on the operation of other units at the STP site.[144] The "other units" are existing STP Units 1 and 2.[145]

As we discussed in Section II.A, *supra,* a contention based on new information will be considered timely under 10 C.F.R. § 2.309(f)(2) if it is filed within 30 days of the availability of the new information.[146] Revised ER § 7.5 may use the same method of analysis as was used elsewhere in the original ER, but the addition of calculating economic impacts of loss of multiple STP units (particularly impacts of a severe accident at STP Unit 1 and/or 2 in addition to Unit 3 and/or 4) to this analysis renders the resulting replacement power costs, the basis for Contentions CL-2 through CL-4, new information to Intervenors. As we discussed in Section III.A, *supra,* the Applicant revised its ER by adding section 7.5 partly to cure the omissions identified in original Contention 21. We think it unreasonable to expect Intervenors to forecast both the admission of original Contention 21 and the Applicant's subsequent use of the same NUREG/BR-0184 approach it used in an earlier version of the ER to calculate replacement power costs in the amended ER. This is the unlikely scenario the Applicant apparently envisioned with its assertion that Intervenors should have pled this contention with their petition for intervention. And in any event, the amended ER applies the approach to a new set of conditions, namely the shutdown of multiple STP Units. Therefore, any analysis of replacement power involving multiple STP Units, resulting from ER § 7.5, is new information, and so contentions based on that information are timely under 10 C.F.R. § 2.309(f)(2).[147]

We note that Intervenors' failure to explicitly challenge SAMDA until their reply is understandable in light of the absence of any explicit reference to it in revised ER Section 7.5S.5, which states: "These costs are less than half of the costs of an accident at the affected unit. The Section 7.3 conclusion that there is no cost-effective ABWR operation design change holds for the mitigation of impacts at other site units."[148] However, the answers of both the Applicant and

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[142] *Id.* at 8.

[143] *Id.* at 1.

[144] *See* Applicant's Motion to Dismiss 21 at 4-5.

[145] *See* LBP-09-21, 70 NRC at 619-20.

[146] *See* Scheduling Order at 8.

[147] We note, however, that to the extent contentions CL-2 and CL-3 challenge the calculation of replacement power costs for a shutdown of only one STP unit due to a severe accident, they are not based on new information and are therefore not timely.

[148] ER Letter, Attach., ER § 2.3.1.

NRC Staff clearly recognize that Intervenors were effectively challenging the Applicant's SAMDA analysis.[149]

Had it used the replacement power costs that Intervenors propose be used, the Applicant maintains those costs would not have a material impact on its analysis of Severe Accident Mitigation Design Alternatives ("SAMDA").[150] The Applicant concluded that none of the ABWR SAMDAs would be cost-effective or would mitigate potential impacts from a severe, large-release accident at the existing units.[151] Furthermore, the Applicant concludes, were one both to multiply the table values by four (to account for the replacement power costs of all four units) and to add the ERCOT replacement power costs, no cost-effective SAMDA would result.[152] Thus, the Applicant claims, Intervenors fail to raise a material issue of fact under 10 C.F.R. § 2.309(f)(1)(iv), and they fail to raise a dispute with the Application regarding a material issue of fact under section 2.309(f)(1)(vi).[153]

As to Contention CL-3, the Applicant maintains Intervenors' arguments lack adequate support to demonstrate that consideration of the market effects of shutting down the units would change the replacement power costs.[154] Instead, the Applicant contends, Intervenors make generalized and conclusory statements that merely state that the ER is deficient, inadequate, or wrong, without providing a reasoned basis or explanation for that conclusion.[155]

The Applicant next argues that Intervenors' claims in Contention CL-3 about future ERCOT power costs are too speculative for a NEPA analysis.[156] In any event, the Applicant argues, NEPA is an environmental statute and it need only evaluate the environmental, and not the economic, impacts of its proposed action.[157] Thus, the Applicant maintains, because the economic impact of a proposed action on ratepayers is outside the scope of a NEPA analysis, those arguments are outside the scope of the proceeding and are therefore inadmissible

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[149] *See, e.g.,* Applicant's Answer to CL Contentions at 21; NRC Staff's Answer to CL Contentions at 22-25.

[150] Applicant's Answer to CL Contentions at 21. NRC Staff agrees with the Applicant that the replacement power cost figures Intervenors propose would not impact the outcome of the SAMDA analysis by resulting in the identification of a cost-beneficial SAMDA. NRC Staff's Answer to CL Contentions at 24; *see also* Tr. at 988-89.

[151] Applicant's Answer to CL Contentions at 21.

[152] *Id.*

[153] *Id.* at 21, 25.

[154] Applicant's Answer to CL Contentions at 23. The Applicant notes that support for a contention is required under 10 C.F.R. § 2.309(f)(1)(v). *Id.*

[155] *Id.; see also* Tr. at 995-97.

[156] Applicant's Answer to CL Contentions at 23-24.

[157] *Id.* at 24-25.

under 10 C.F.R. § 2.309(f)(1)(iii).[158] The Applicant also contends that Intervenors' remaining colocation contentions are inadmissible because the NEPA rule of reason dictates that the ER need only discuss and evaluate impacts that either have some likelihood of occurring or are reasonably foreseeable.[159]

NRC Staff contends that the consideration of SAMDAs to mitigate the environmental consequences of the proposed action (for proposed STP Units 3 and 4) is a valid NEPA consideration, but the consideration of SAMDAs at the proposed units to mitigate environmental consequences of the *already-existing* reactors (STP Units 1 and 2) is not a valid NEPA consideration.[160] Thus, in NRC Staff's view, the cost-risk calculations Intervenors propose in Contention CL-2, as they relate to the *existing* reactors, are not material to the findings that the NRC must make to license the proposed reactors under 10 C.F.R. § 2.309(f)(1)(iv).[161]

NRC Staff claims that a dispute would be material in the instant proceeding, in the context of the SAMDA analysis, if its resolution could result in the identification of a cost-beneficial SAMDA.[162] However, because Intervenors only take issue with one component of the cost-risk evaluation in the Applicant's analysis, and because they do not show how this would affect the overall cost-risk figure or whether such a change might result in the identification of a cost beneficial SAMDA, NRC Staff claims that Intervenors have failed to raise a genuine dispute with the Applicant on a material fact.[163]

NRC Staff claims that the report of Intervenors' expert, Clarence Johnson, includes no estimate of potential increases in the costs of replacement power — and even that is only one component of the monetized impact of a severe accident.[164] NRC Staff argues further that the difference in the monetized impact of a severe accident would be material to the findings the NRC must make in this proceeding only if it would result in one or more cost-beneficial SAMDAs.[165] NRC Staff also contends that Intervenors fail to allege facts or provide expert opinions

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[158] *Id.* (citing *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614 (1976); *Detroit Edison Co.* (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-470, 7 NRC 473, 474-75 (1978); *Puget Sound Power & Light Co.* (Skagit/Hanford Nuclear Power Project, Units 1 and 2), LBP-82-26, 15 NRC 742, 744 (1982)); *see also* Tr. at 1005-07 (discussing whether economic impacts are within the scope of NEPA considerations required for NRC/COLA purposes at issue in this proceeding).

[159] Applicant's Answer to CL Contentions at 25 (quoting *La. Energy Servs., L.P.* LBP-06-8, 63 NRC at 258-59).

[160] NRC Staff's Answer to CL Contentions at 25.

[161] *Id.*

[162] NRC Staff's Answer to CL Contentions at 24 (citing *Grand Gulf,* CLI-05-4, 61 NRC at 13; *Yankee Nuclear,* CLI-96-7, 43 NRC at 259).

[163] *Id.* at 24-25.

[164] *Id.* at 27.

[165] *Id.*

that would support Contention CL-3's market effects analysis, and Intervenors fail to point to any significant inaccuracies or omissions in the Applicant's ER colocation revisions.[166] Therefore, NRC Staff asserts that Intervenors' claims — that market effects on replacement power costs should be considered in the context of severe accidents — do not raise a genuine material dispute with the Applicant.[167]

NRC Staff also claims that Intervenors fail to explain how increases to the ERCOT market price are likely, or how Intervenors projected such increases.[168] For these reasons, NRC Staff argues that Intervenors fail to provide sufficient information to establish a significant omission from or inaccuracy in the Applicant's SAMDA analysis.[169] Further, NRC Staff asserts that although Intervenors raise the issue of potential price spikes, they neither show how these price spikes would impact the costs of a severe accident nor show that such impacts might result in a cost-beneficial SAMDA.[170]

Because Contentions CL-2, CL-3, and CL-4 are so closely interwoven, we consider their admissibility concurrently. In essence, Intervenors' remaining colocation contention alleges:

> The Applicant's calculation in ER Section 7.5S of replacement power costs in the event of a forced shutdown of multiple STP Units is erroneous because it underestimates replacement power costs and fails to consider disruptive impacts, including ERCOT market price spikes.

We will now refer to this consolidated contention as Contention CL-2.[171] Turning to the contention admissibility criteria of 10 C.F.R. § 2.309(f)(1)(i) and (ii), Intervenors' pleadings present the requisite statements of fact to be raised or controverted and a brief explanation of the basis for the contention.[172] Next, criterion (iii) requires Intervenors to demonstrate that the contention is within the

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[166] *Id.*

[167] *Id.*

[168] NRC Staff's Answer to CL Contentions at 28.

[169] *Id.*

[170] *Id.* at 29.

[171] Long held Commission precedent dictates that licensing boards may reformulate contentions to "eliminate extraneous issues or to consolidate issues for a more efficient proceeding." *See, e.g., Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552 (2009); *Shaw AREVA MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 482 (2008). Additionally, we are authorized to hold prehearing conferences to simplify or clarify the issues for hearing, after which we may admit a revised contention, so long as the revised contention does not add material not raised by the intervenor to make it admissible. *Crow Butte,* CLI-09-12, 69 NRC at 553 (citing 10 C.F.R. §§ 2.319(j), 2.329(c)(1)).

[172] Intervenors' CL Contentions at 7-10; Johnson Report.

scope of the proceeding.[173] While the Applicant, but not NRC Staff, maintains that NEPA does not require an applicant to evaluate the economic impacts of a proposed nuclear plant on consumers,[174] the law is not as sweeping as the Applicant suggests. Under NEPA, an agency must consider alternatives to the proposed action.[175] In the NRC licensing context, 10 C.F.R. § 51.45 requires an applicant's ER to discuss alternatives.[176] And as all the parties apparently agree, Contention CL-2 challenges the adequacy of the replacement power costs in the Applicant's ER Amendment[177] that are fundamental to the SAMDA analysis,[178] which is a subset of severe accident mitigation alternatives ("SAMA") analysis.[179] The Commission has stated that SAMAs "are rooted in a cost-benefit assessment" and that the purpose of the assessment is to identify plant changes whose costs would be less than their benefit (i.e., the "potential for significantly improving severe accident safety performance").[180] Thus, because Contention CL-2 challenges the Applicant's analysis of the impacts of a severe accident (the benefit side of the SAMDA cost-benefit analysis), it is within the scope of this proceeding. Similarly, because Intervenors claim that using their replacement power costs, which they claim are more realistic, "could raise the overall monetized impacts to a point in which a SAMDA is cost-effective,"[181] their allegations regarding replacement power costs are material to the SAMDA analysis, which is a material part of NRC's NEPA analysis, and therefore satisfy 10 C.F.R. § 2.309(f)(1)(iv).[182]

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[173] 10 C.F.R. § 2.309(f)(1)(iii).

[174] Applicant's Answer to CL Contentions at 24-25.

[175] 42 U.S.C. § 4332(2)(C)(iii).

[176] 10 C.F.R. § 51.45(b)(3).

[177] Intervenors' CL Reply at 12.

[178] *See, e.g.,* Applicant's Answer to CL Contentions at 21; NRC Staff's Answer to CL Contentions at 22-25; Intervenors' CL Reply at 12-13.

[179] *See* Licenses, Certifications, and Approvals for Nuclear Power Plants, 72 Fed. Reg. 49,352, 49,426 (Aug. 28, 2007) ("SAMDAs are alternative design features for preventing and mitigating severe accidents, which may be considered for incorporation into the proposed design. The SAMDA analysis is that element of the severe accident mitigation alternatives [SAMA] analysis dealing with design and hardware issues.").

[180] *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 5 (2002).

[181] Intervenors' CL Reply at 13.

[182] Three additional points are relevant here. First, "materiality" in this context is simply a pleading requirement, not a proof requirement. Second, at the contention admissibility stage, Intervenors are not required, under the rubric of "materiality," to run a sensitivity analysis and/or to prove that the alleged defects would, in fact, change the result. *See McGuire,* CLI-02-17, 56 NRC at 9-10; *U.S. Department of Energy* (High-Level Waste Repository), LBP-09-6, 69 NRC 367, 416 (2009) ("DOE cannot, at the contention admissibility stage, demand that petitioners rerun DOE's TSPA in order to demonstrate the impact of alleged defects."). That would be an assessment of the merits. Third, inasmuch as NEPA is

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The Johnson Report satisfies the requirement under 10 C.F.R. § 2.309(f)(1)(v) that contentions be supported by alleged facts or expert opinion. This 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."[183] Contrary to the Applicant's assertion in opposition to Contention CL-3, Intervenors' pleadings and the Johnson Report both recite facts to support their assertion that, when multiple STP units are shut down, the ER's projection of replacement power costs is incorrect or incomplete.

Finally, contrary to the Applicant's argument, Intervenors have satisfied the requirements of section 2.309(f)(1)(vi). Under that criterion, a properly formulated contention must focus on the license application in question and challenge specific portions of (or omissions from) it, thereby establishing that a genuine dispute exists with the applicant on a material issue of law or fact. To begin with the basis of the Applicant's SAMDA analyses, Intervenors and the Applicant disagree over whether the Applicant should have used ERCOT costs to create its SAMDAs. They do not agree that the Applicant failed to account for the electricity price increase that would result if more than one STP unit is removed from the ERCOT market. They also disagree whether the current ABWR SAMDAs would be cost-effective or would mitigate potential impacts from a severe, large-release accident at the existing units. Essentially, Intervenors present information to explain that they believe the Applicant must perform a new SAMDA analysis. As we noted previously, information supporting SAMDAs is a material part of the Applicant's ER and the COLA. Therefore, Intervenors have presented a genuine dispute with the Applicant on a material issue of fact. Because Contention CL-2 meets the contention admissibility criteria of 10 C.F.R. § 2.309(f)(1), it is admitted.

D. Motions to Dismiss Contentions 8, 9, 14, and 16

The Applicant asserts that its ER revisions cure the omissions raised in Con-

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a procedural statute that mandates that the NRC take a hard look at environmental impacts, but does not dictate a specific result, it is inappropriate, perhaps even impossible, for an Intervenor to prove (certainly at the contention admissibility stage) that correcting an error or omission in the ER or EIS would, in fact, change the NRC's ultimate decision. *See, e.g., Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 44 (2001) (quoting *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 349 (1989)). Here, the Intervenors allege that an essential portion of the Applicant's ER, which is a required component of a COLA, is deficient. Considered together with the support Intervenors have provided for Contentions CL-2 through CL-4, this reformulated contention meets the materiality requirement of 10 C.F.R. § 2.309(f)(1)(iv).

[183] *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-09-4, 69 NRC 170, 194-95 (2009) (quoting *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 356 (2006) (internal quotations omitted)).

tentions 8, 9, and 14. These contentions raise concerns about the environmental impacts of increased concentrations of nonradioactive and radioactive pollutants in the main cooling reservoir ("MCR"), in seepage from the MCR into adjacent groundwater, and in discharges from the MCR to surface water. Intervenors disagree that the Applicant's revisions to the ER moot these contentions.[184]

Turning first to Contention 8, this contention was admitted as follows: "The Environmental Report fails to analyze the environmental impacts associated with the increase in radionuclide concentration in the MCR due to operation of STP Units 3 & 4."[185] Intervenors claim that the Applicant's revisions do not render Contention 8 moot because: (1) "[w]hile the ER does discuss the quantities and forms of the increases of radioactivity in the MCR it does not discuss the environmental impacts thereof";[186] (2) the ER offers no factual support for the position that operation of proposed STP Units 3 and 4 will not result in radionuclides being detected in biological samples;[187] (3) the ER does not discuss the "fate and transport" of cobalt-60 ("Co-60") in the MCR beyond stating that there is no pathway for human exposure to cobalt-60;[188] (4) the ER does not discuss the effects of gamma radiation from Co-60 on organisms in the MCR;[189] (5) the ER contains "scant discussion" of physical effects of discharges from the MCR;[190] and (6) the ER does not account for organically bound tritium ("OBT").[191]

Alternatively, Intervenors request that Contention 8 be amended to allege that the ER has omitted a discussion of "actual environmental impacts, including bioaccumulation and bioconcentration, anticipated from radioactive particulates and tritium discharged into the MCR."[192] In support of preserving Contention 8 (as originally proffered or as Intervenors have proposed to modify it), Intervenors claim that the Applicant "overlooks that organically bound tritium remains in the body longer than tritiated water."[193] Intervenors further claim that the Applicant does not acknowledge adverse health effects of tritium exposures.[194] With respect to other nuclides, Intervenors allege that "the discussion regarding exposure

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[184] Intervenors' Response to 8, 9, 14 at 1.

[185] LBP-09-25, 70 NRC at 875.

[186] Intervenors' Response to 8, 9, 14 at 2; *see also* Tr. at 812.

[187] Intervenors' Response to 8, 9, 14 at 3.

[188] *Id.*

[189] *Id.* at 4.

[190] *Id.* at 5. Intervenors explained at oral argument that these changes refer to the biological effects of Co-60 particles in the MCR. *See* Tr. at 822-23.

[191] Intervenors' Response to 8, 9, 14 at 5.

[192] *Id.* (We note that Intervenors do not formally propose any specific language for amended Contention 8.)

[193] *Id.*

[194] *Id.*

pathways does not describe the environmental effects of increasing radioactive levels in the MCR, [and . . . there] is no discussion of the environmental effects of continued concentration of the particulates in the MCR sediment though the Applicant acknowledges such will occur."[195]

In contrast, both the Applicant and NRC Staff assert that the ER, as amended, does discuss the environmental impacts of radionuclides, specifically tritium and Co-60, including exposure pathways and doses to humans and biota.[196] The Applicant and NRC Staff allege that Intervenors do not demonstrate any flaws in the Applicant's analysis or conclusions.[197] The Applicant maintains that, with respect to Co-60, it has utilized different deposition or mixing rates, has employed the actual dimensions and weight of Co-60 released, and has even assumed a worst-case scenario of resuspension of Co-60 after it has settled out of the water column.[198] From this, the Applicant has concluded that Co-60 concentrations in the MCR would remain within regulatory limits, and hence, would have an insignificant environmental impact.[199]

In addition, NRC Staff argues that Intervenors fail to demonstrate a factual dispute regarding radioactive releases to the MCR. NRC Staff states that even were the Applicant to use a different method of calculating Co-60 concentrations, or to differentiate between tritiated water and OBT, the Applicant's impact determinations in the ER would remain unchanged.[200] Additionally, NRC Staff asserts that the Applicant "described controls to the ER, discussed environmental effects, and concluded that water quality standards would be maintained and impacts to surface water, groundwater, humans, and biota would be small."[201] NRC Staff also faults Intervenors for failing to provide "any information to support

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[195] *Id.* at 2.

[196] *See* NRC Staff's Answer to MCR Contentions at 11-13; Applicant's Answer to MCR Contentions at 20-21. The Applicant incorporates its arguments concerning the admissibility of Intervenors' new MCR Contentions, specifically contentions MCR-1 and MCR-5.

[197] *See* NRC Staff's Answer to MCR Contentions at 11-13; Applicant's Answer to MCR Contentions at 20-21.

[198] Applicant's Answer to MCR Contentions at 22-23.

[199] *Id.* at 22-24. In addition, to counter Intervenors' argument that it is obligated to differentiate radionuclide releases from proposed STP Units 3 and 4, as opposed to existing STP Units 1 and 2, the Applicant argues that it is not required to distinguish pollutants discharged from the new units from pollutants discharged from the existing units so long as the combined discharges would be both within regulatory limits and less than the total discharge from the existing STP Units 1 and 2 in 1992. Regardless of whether the Applicant has any obligation to differentiate between such discharges, NRC Staff points out that the Applicant did compare tritium and Co-60 discharges from the existing and proposed units. NRC Staff's Answer to MCR Contentions at 11.

[200] NRC Staff's Answer to MCR Contentions at 13-16.

[201] *Id.* at 14.

the assertion that these small impacts would have 'actual physical changes' that have not been adequately considered or discussed by the Applicant."[202]

Intervenors counter that it is improper to dismiss Contention 8 (in its admitted form or in a modified version) because the Applicant's revisions to the ER neither discuss the environmental impacts of accumulated radioactive materials in the MCR nor address the merits of the contention.[203] Intervenors allege that the Applicant's ER discussion of "exposure pathways does not describe the environmental effects of increasing radioactive levels in the MCR" or of continued concentration of radioactive particulates in the MCR sediment — even though Intervenors claim the Applicant acknowledges such concentration will occur.[204] Intervenors also take exception to the Applicant's estimation of deposition on the bottom of the MCR because, Intervenors claim, the Applicant assumes that deposition will occur uniformly.[205] Through their expert, D. Lauren Ross, Ph.D., Intervenors claim that "estimates of radioactive concentration should be based on sediment deposition rates not on mixing rates."[206] Intervenors further claim that the Applicant has failed to address "the qualities of the Cobalt-60 in terms of dimensions or weight [. . .] the effects of gamma radiation from Cobalt-60 on living organisms in the MCR, [and] bioconcentration or bioaccumulation of radionuclides in the MCR."[207]

Contention 9 asserts: "The Environmental Report fails to predict or evaluate the effects of increasing groundwater tritium concentrations."[208] In support of their claim that the Applicant's revisions do not moot Contention 9, Intervenors incorporate by reference their Contention 8 arguments, i.e., that the ER does not discuss actual environmental impacts and does not account for OBT.[209]

Contention 14, as narrowed and admitted by this Board, states: "the ER fails to analyze adequately the environmental impacts of unregulated seepage from the MCR into the adjacent shallow groundwater."[210] Intervenors assert that Contention 14 has not been rendered moot and incorporate the arguments they previously asserted with respect to Contention 8 regarding mootness. In addition, although

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[202] *Id.* at 15. NRC Staff also argues that amended Contention 8 is untimely with regard to consideration of OBT because earlier versions of the ER also did not distinguish OBT from tritiated water, Intervenors did not raise the issue of OBT in their initial petition (although they did raise issues concerning tritium discharges), and the information they use to make the OBT argument was previously available. *Id.* at 9-10.

[203] Intervenors' Response to 8, 9, 14 at 1-2.

[204] *Id.* at 2.

[205] *Id.* at 2-3.

[206] *Id.* at 3.

[207] *Id.* at 4.

[208] LBP-09-25, 70 NRC at 876.

[209] Intervenors' Response to 8, 9, 14, at 6.

[210] LBP-09-25, 70 NRC at 890.

conceding that the Applicant states in the revised ER its discharges to the MCR will be monitored under a TPDES permit, Intervenors assert that Contention 14 is not moot because the Applicant has failed to address "the environmental effects of *unregulated* seepage from the MCR into the adjacent shallow groundwater."[211]

1. Motion to Dismiss Contention 8

The Applicant has modified its ER to remedy the omission that gave rise to Contention 8 by adding information about seepage flow paths (addressed in new ER § 2.3.1.1.2.1),[212] the effects of tritium in surface water (addressed in revised ER § 5.2.3.1), the effects of tritium in groundwater (addressed in new ER § 5.2.3.2), and other radionuclides (addressed in revised ER § 5.4.1).[213]

First, with respect to tritium, ER § 5.2.3.1 explains that tritium concentrations in the MCR are frequently measured, and that those measurements indicate that tritium concentrations have remained well below the NRC reporting limit of 30,000 picocuries per liter (pCi/L).[214] The Applicant also asserts that, due to the improved design of proposed STP Units 3 and 4, their discharges will only increase the MCR tritium concentration by 16 pCi/L.[215] Thus, the ER concludes that tritium concentrations will remain well below regulatory requirements, and the environmental effects of tritium will of necessity be small.[216]

Rather than challenging the Applicant's projected concentration of tritium in the MCR, Intervenors center their criticism on the Applicant's alleged failure to address OBT, which can lead to increased exposure relative to unbound tritium.[217] The Applicant counters that doses from OBT are quite small,[218] and it refers to the report of Intervenors' own expert, Arjun Makhijani, Ph.D., which states that (1) only about 3 percent of tritiated water actually becomes OBT, and (2) only about 50 percent of OBT in consumed food is then transferred to the consumer.[219] Thus, even if the ER specifically addressed the effects of OBT, the resulting

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[211] Intervenors' Response to 8, 9, 14 at 6-7 (emphasis added).

[212] Applicant's Motion to Dismiss 8, 9, 14, at 4.

[213] *Id.* at 5.

[214] ER Letter, Attach. 2 at 5-6.

[215] *Id.* at 7-8.

[216] *Id.*

[217] Intervenors' Response to 8, 9, 14 at 5.

[218] Tr. at 857 (referring to Intervenors' statement by Dr. Makhijani). Dr. Makhijani indicates that the biological effects of ingesting OBT are about twice as severe as ingesting free tritiated water. Intervenors' MCR Contentions, Attach., Letter from Arjun Makhijani, Ph.D., at 1 (Dec. 23, 2009) (ADAMS Accession No. ML0935706470) [hereinafter Makhijani Report].

[219] Tr. at 857.

environmental effects of tritium would be small and so no material omission remains in the ER regarding tritium.

With respect to nuclides other than tritium (the primary nuclides of concern are cobalt-58 (Co-58), Co-60, and cesium-137 (Cs-137)), the Applicant asserts it has addressed the exposure pathways of these constituents in ER § 5.4.1. The Applicant's ER revisions state that levels of cobalt have declined in recent years so that they are now below the level of detection, and that when proposed STP Units 3 and 4 are brought on line, cobalt levels are expected to remain below the level of detection. While traces of Cs-137 have on occasion been detected, the levels of Cs-137 appear to be background, i.e., they are similar to the concentrations that were measured prior to the operation of existing STP Units 1 and 2.[220] Effectively, Intervenors have failed to provide factual support that creates a dispute with the Applicant's assertion that radioactive nuclide concentrations have been, and are projected to remain, below regulatory limits. Moreover, Intervenors have not provided a legal basis for requiring the Applicant to expand on the discussion of radioactive nuclide concentrations that is currently set forth in the amended ER.

With respect to Intervenors' claim that the Applicant should project higher calculated concentrations of radionuclides in some areas (rather than simply assuming a uniform deposition in the sediment of the MCR),[221] the Applicant claims that it took actual samples of the sediment in random and potential hot spot locations, and it could not detect Co-60 in those sediments.[222] Intervenors have provided nothing to suggest that if actual data from potential hot spots did not yield detectable concentrations of Co-60, anything could be gained from the more detailed projections they seek.

Finally, Intervenors claim that the Applicant should describe the quantities of the Co-60 in terms of dimensions or weight, the effects of gamma radiation from Co-60 on living organisms in the MCR, and bioconcentration or bioaccumulation of radionuclides in the MCR.[223] Intervenors characterize this as a contention of omission. Yet, in light of the absence of detectable radioactivity in biological samples (no such radioactivity has been detected since 1992) and the Applicant's uncontroverted projection that no radioactivity will be detected in biological samples after proposed STP Units 3 and 4 come on line, Intervenors have provided no legal or factual basis for requiring the Applicant to discuss these matters.[224]

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[220] *See* ER § 5.4.1.

[221] Intervenors' Response to 8, 9, 14 at 2.

[222] Tr. at 819, 822.

[223] Intervenors' Response to 8, 9, 14, at 4.

[224] Tr. at 867. As noted above, *see supra* note 192, Intervenors did not propose specific language for amended Contention 8.

2. Amended Contention 8

Intervenors maintain that, even were the Board to conclude that the Applicant's revisions to its ER addressed the omissions alleged in original Contention 8, the contention should nevertheless be advanced in a modified form "based on the omission of discussion by Applicant of the actual environmental impacts, including bioaccumulation and bioconcentration, anticipated from radioactive particulates and tritium discharged into the MCR."[225]

Although Intervenors suggest bioaccumulation and bioconcentration could lead to higher doses of radioactive particulates and tritium in the MCR, the Applicant has, in fact, evaluated the impact of radiological discharges on biota in ER § 5.4.4, and Intervenors have provided nothing to suggest that further evaluation is required. Because the Applicant has performed the very study Intervenors seek with amended Contention 8, Intervenors' Amended Contention 8 fails to raise a material, genuine dispute with the Applicant. Under 10 C.F.R. § 2.309(f)(1)(iv) and (vi), it is not admissible.

3. Motion to Dismiss Contention 9

Contention 9, as admitted by this Board, states:

> The Environmental Report fails to predict or evaluate the effects of increasing groundwater tritium concentrations.[226]

The Applicant's revision to ER Section 5.2.3 states that tritium concentrations in the MCR are measured frequently and that those tritium concentrations have remained well below the NRC reporting limit of 30,000 pCi/L.[227] That section also indicates the MCR is the source of seepage into shallow adjacent groundwater, so that the concentration of pollutants in the MCR sets the upper boundary of groundwater tritium concentrations.[228] Moreover, the Applicant asserts that the improved design of proposed STP Units 3 and 4 will cause the tritium concentration in the MCR to increase by only 16 pCi/L, so that even after those units are operating, tritium concentrations will remain well below the regulatory limit.[229] Intervenors claim that Contention 9 is not moot because the Applicant's ER revisions either do not discuss the environmental impacts of increased tritium

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[225] Intervenors' Response to 8, 9, 14 at 5.

[226] LBP-09-25, 70 NRC at 876.

[227] *See* ER Letter, Attach., ER § 5.2 at 6-8.

[228] *Id.*

[229] *Id.* NRC Staff agrees with the Applicant that these supplements to the ER render Contention 9 moot. *See* NRC Staff Answer to MCR Contentions at 3.

concentrations in groundwater, or do so in a way that "fails to address the merits of the contention."[230] However, Contention 9 was admitted as a contention of omission. As such, Commission precedent dictates that we dismiss it for mootness if — as has happened here — the Applicant's revised ER cures the omission by evaluating the effects of increasing tritium concentration in groundwater.[231] Therefore, Contention 9 is dismissed.

4. Motion to Dismiss Contention 14

Contention 14, as admitted by this Board, states:

> The Environmental Report fails to analyze adequately the environmental impacts of unregulated seepage from the MCR into the adjacent shallow groundwater.[232]

The Applicant revised ER §§ 2.3.1, 5.2, and 5.4 to address the transport of radionuclides, including tritium, in MCR seepage.[233] In those sections, the Applicant estimates that the quantity of water captured by the relief well system and the quantity that seeps to the shallow aquifer system will remain within the original design levels,[234] so that the addition of proposed STP Units 3 and 4 will have an insignificant impact on the current MCR seepage rate.[235]

Intervenors ask us to determine whether the Applicant's discussion in the ER, in conjunction with its reliance on a Texas Pollutant Discharge Elimination System ("TPDES") permit regulating discharges to the MCR, adequately assesses the environmental impacts of those discharges.[236] To the extent Intervenors' assertions are a continuation of their complaint about the terms and conditions of the Applicant's TPDES permit, we extensively addressed this issue in our September 29, 2009 Order.[237] In particular, we made clear that 33 U.S.C. §§ 1371(c)(2) (section 521(c)(2) of the Clean Water Act) prohibits an agency such as the NRC from using NEPA to impose additional effluent limitations on an applicant's

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[230] Intervenors' Response to 8, 9, 14 at 6.

[231] *See, e.g., McGuire/Catawba,* CLI-02-28, 56 NRC at 383.

[232] LBP-09-25, 70 NRC at 896.

[233] *See* ER Letter Attach., ER §§ 2.3.1, 5.2, and 5.4.

[234] *See* ER Letter Attach., ER § 2.3.1.

[235] *Id.* NRC Staff agrees with the Applicant that this addition to the ER renders Contention 14 moot. *See* Applicant's Motion to Dismiss 8, 9, 14 at 10.

[236] Intervenors' Response to 8, 9, 14 at 6-7.

[237] LBP 09-25, 70 NRC at 876-90.

wastewater discharges to surface waters, such as the Main Cooling Reservoir.[238] Consequently, sole responsibility for the terms and conditions of that TPDES permit lie with the State of Texas and the U.S. Environmental Protection Agency. Those terms and conditions are not at issue here.

With respect to Intervenors' concerns about the Applicant's ER revisions, Intervenors miss the mark in their claim that the revisions either do not discuss the environmental impacts of seepage from the MCR into groundwater, or that they do so in a way that "fails to address the merits of the contention."[239] In fact, revised ER § 2.3.1.1.2.1 evaluates the impact of proposed STP Units 3 and 4 by projecting the volume of (1) water in the MCR, (2) seepage from the MCR to shallow groundwater adjacent to the MCR, (3) seepage captured by the relief well system, and (4) the seepage that will remain in the shallow groundwater adjacent to the MCR. In light of the fact that the MCR water level is projected to remain within the original design levels, revised ER § 2.3.1.1.2.1 states that proposed STP Units 3 and 4 would have an insignificant impact on the current MCR seepage rate.[240] Because Intervenors have not filed an amended contention to refute the Applicant's analysis, the water quantity issue posed by this contention is resolved.

The other component of this contention is water quality. To the extent it comes properly before us, water quality concerns two types of constituents: radioactive and nonradioactive. The Applicant addresses both in revised ER § 5.2.3.1. With respect to the radioactive constituents in the Applicant's discharge, our reasons for dismissing Contentions 8 and 9 apply with equal force here. Accordingly, Intervenors' concerns regarding the environmental impacts of radioactive seepage encompassed in Contention 14 are moot, and for that reason, they are dismissed as well.

With respect to Intervenors' concerns with nonradioactive constituents in the Applicant's discharges, the ER projects that the discharge from proposed STP Units 3 and 4 will increase slightly (if at all) the concentrations of chemicals and other constituents in the MCR.[241] Moreover, the ER describes those nonradioactive constituents in the MCR as comparable to Texas state drinking water standards (except for aluminum and arsenic, which are not attributed to plant operations

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[238] 33 U.S.C. § 1371(c)(2) provides that nothing in NEPA shall be deemed to "authorize any such agency to impose, as a condition precedent to the issuance of any license or permit, any effluent limitation other than any such limitation established pursuant to this chapter." Certainly, the Clean Water Act does not authorize regulation of discharges to groundwater (*Exxon Corp. v. Train,* 554 F.2d 1310, 1312 (5th Cir. 1977), and so the Applicant's ER must address, and with these ER revisions has addressed, those discharges to groundwater. Still, the provisions of the TPDES permit cannot be adjudicated in this forum.

[239] Intervenors' Response to 8, 9, 14 at 6. Intervenors also incorporate by reference their arguments opposing the Applicant's Motion to Dismiss Contention 8.

[240] Applicant's Motion to Dismiss 8, 9, 14 at 7; ER Letter, Attach., ER § 2.3.1 at 2.

[241] ER Letter, Attach., ER § 2.3.1 at 2; *see also* ER § 5.2.

but instead are introduced from ground and surface water sources).[242] Finally, revised ER § 5.2.3.2 indicates that seepage water quality to the shallow adjacent groundwater is determined by MCR surface water quality because the MCR is the source of such seepage. Because MCR water quality meets regulatory limits, the environmental impacts of seepage to the adjacent shallow groundwater would also be small.[243] Based on the foregoing, the Applicant asserts that proposed STP Units 3 and 4 will produce environmental impacts on water quality (whether in the MCR and in any surface or groundwater that directly or indirectly receives discharges from the MCR) that are expected to be within the "small" regulatory threshold.[244] For their part, Intervenors have not filed an amended contention to refute the Applicant's analysis. Therefore, for the same reasons Contentions 8 and 9 are now moot, Contention 14 is also moot. The Applicant has addressed the omission identified in Contention 14, and it is hereby dismissed.

5. Motion to Dismiss Contention 16

Contention 16, as admitted by this Board, states:

> The Environmental Report fails to consider adequately the environmental impact of the possible withdrawal of additional groundwater in excess of that authorized by the current permits.[245]

Regarding Contention 16, in its response to a Request for Additional Information ("RAI") from NRC Staff, the Applicant stated that operation of proposed STP Units 3 and 4 will not require groundwater withdrawals above the limit authorized by its current permits.[246] As a result, the Applicant argues that it need not evaluate the environmental impacts of withdrawals above that limit.[247] This information, the Applicant asserts, renders Contention 16 moot, and the contention should be dismissed.[248] Likewise, NRC Staff asserts that Contention 16 should be dismissed because "the basis for the Board's materiality determination" was the Applicant's statement in the original ER that groundwater withdrawals above the currently

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[242] ER Letter, Attach., ER § 5.2, at 3.
[243] *Id.* at 6-8.
[244] *Id.* at 2-4, 6-7.
[245] LBP-09-25, 70 NRC at 896.
[246] Applicant's Motion to Dismiss 16 at 4.
[247] *Id.* at 5.
[248] *Id.* at 4-5.

permitted limit might be necessary, and that basis no longer exists in light of the RAI response.[249]

Intervenors argue that Contention 16 is not moot because the Applicant has erred in stating that operation of proposed STP Units 3 and 4 will not require groundwater withdrawals above the currently permitted limit.[250] Intervenors base their argument on: (1) the existence of a "maximum case" withdrawal scenario that, if sustained, could lead to withdrawals above the currently permitted level; (2) the small margin of error between the amount of groundwater that would be withdrawn under "normal" operating conditions of all four STP units and the currently permitted limit; (3) diversion to the MCR of a portion of the groundwater withdrawn; and (4) a proposed increase in the Applicant's groundwater pumping capacity.[251] Intervenors also assert that the Applicant fails to address whether decreases in surface water availability due to drought could increase withdrawal of groundwater and whether drought conditions could lead to decreased availability of groundwater.[252] Finally, Intervenors argue that the submission of a RAI response cannot render a contention moot "without a determination of the adequacy of the information therein" and that a decision on whether the new information renders the contention moot is premature because NRC Staff has not yet determined whether the RAI response is satisfactory.[253]

The Applicant's RAI response clarifies that its existing groundwater withdrawal permit is based on cumulative groundwater use over a period of time (approximately 9,000 acre-ft over 3 years), and that its groundwater withdrawal permit does not constrain either the groundwater production rate or the groundwater drawdown.[254] The Applicant has further explained that the volume it is authorized to take under its groundwater withdrawal permit encompasses groundwater diversion to the MCR.[255] Finally, the Intervenors conceded that, although the addition of groundwater pumping capacity could increase groundwater use efficiency, such an increase in pumping capacity would not necessarily lead to

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[249] NRC Staff Answer to Applicant's Motion to Dismiss Contention 16 as Moot (Oct. 19, 2009) at 3 [hereinafter NRC Staff's Answer to Motion to Dismiss 16]. NRC Staff further argues that Intervenors' "[c]hallenges to the adequacy of the new information [in the RAI response] should be submitted in the form of a new or amended contention." *See id.* at 3; *see also* Tr. at 786-88.

[250] Intervenors' Response to 16 at 1-5.

[251] *Id.* at 2-3.

[252] *Id.* at 4-5.

[253] *Id.* at 5-6. As discussed in Section II.B, *supra,* for a contention of omission, if the information is later supplied by the applicant, the contention is moot. *See supra* note 31 and accompanying text.

[254] Letter from Scott Head, Manager, Regulatory Affairs, STP Units 3 & 4, to NRC, Response to Request for Additional Information (Sept. 28, 2009) (ADAMS Accession No. ML092730285) [hereinafter STP Response to Sept. 2009 RAI], Attach. 5 at 3; Tr. at 801.

[255] *Id.* at 799-800.

a violation of the groundwater withdrawal permit limits.[256] In its response to the RAI, the Applicant also said it does not intend to use groundwater in excess of existing permit limits.[257] As a result, the Applicant amended the COLA for proposed STP Units 3 and 4 to remove any reference to the possible need for increased groundwater use and any concomitant modifications to its groundwater withdrawal permit.[258] Intervenors have not filed an amended contention to refute the Applicant's claim that it no longer needs a permit modification. As a result of these revisions to the ER, Contention 16 is hereby dismissed as moot.

E. Intervenors' New MCR Contentions

Intervenors' five new MCR Contentions were submitted in response to the Applicant's revisions to ER §§ 2.3.1, 5.2, and 5.4, which provide additional information on the potential environmental impacts associated with the radionuclide concentrations in the MCR, tritium concentrations in groundwater, and seepage from the MCR into adjacent groundwater. We address the admissibility of each below.

1. MCR-1 — Organically Bound Tritium (OBT)

> The Environmental Report fails to discuss the actual environmental impacts, including bioaccumulation, bioconcentration, and human health effects, anticipated from radioactive particulates and tritium discharged into the MCR (Main Cooling Reservoir).[259]

In Contention MCR-1, Intervenors assert that the ER fails to address bioaccumulation and bioconcentration of radionuclides, specifically increased biological damage caused by OBT.[260] In support of this contention, Intervenors incorporate by reference their "arguments and authorities in their response to the Applicant's motion to dismiss Contention 8" as well as a statement of their expert witness, Dr. Makhijani.[261] In his statement, Dr. Makhijani asserts that OBT may pose a greater hazard than free tritium, particularly at a well lying 1400 feet offsite.[262]

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[256] *Id.* at 802-04.

[257] STP Response to Sept. 2009 RAI, Attach. 5 at 1. Attach. 5 to this letter presents thirty-eight affected changes to the ER.

[258] *See id.,* Attach. 5 at 1-2.

[259] Intervenors' MCR Contentions at 3.

[260] *Id.* at 3-4.

[261] *Id.* at 3.

[262] *Id.*; Makhijani Report at 1.

Both the Applicant and NRC Staff claim that any such evaluation of OBT would not affect the ER's conclusion that tritium concentrations in the MCR would be within regulatory limits and therefore would have a small environmental impact.[263]

Intervenors respond that because OBT has substantially greater biological effects than tritiated water, the distinction between OBT and tritiated water is material even if MCR discharges remain within regulatory limits.[264] Dr. Makhijani claims that tritium can be bound within organic materials, and ingestion of those materials can lead to higher doses than ingestion of equivalent amounts of free tritium.[265] He also claims that the Applicant should evaluate bioaccumulation, bioconcentration, and human health effects from radioactive particulates and tritium concentrations in the offsite well closest to the proposed STP Units 3 and 4, which is approximately 1400 feet from the MCR.[266]

In response, the Applicant maintains, and Intervenors do not dispute, that the tritium concentrations at that well are conservatively estimated to be approximately 1600 pCi/L,[267] which is twenty times lower than the NRC reporting standard for tritium. Thus, according to the Applicant, if one were to accept Intervenors' argument that OBT poses a greater hazard than tritiated water and assume that all tritium is OBT, then the actual tritium concentration of 1600 pCi/L at the well would have the biological effect of twice that concentration, i.e., 3200 pCi/L of tritium.[268] This effect would still be over nine times below the NRC reporting level.[269] Plainly and simply, Intervenors have not demonstrated that any such study could produce a material difference. Therefore, Contention MCR-1 fails to demonstrate that it is material to the findings NRC Staff must make to issue a COL and fails to demonstrate a genuine dispute on a material fact, as 10 C.F.R. § 2.309(f)(1)(iv) and (vi) require.

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[263] Applicant's Answer to MCR Contentions at 6-8; NRC Staff's Answer to MCR Contentions at 20-22. NRC Staff also opposes this contention as nontimely because the original ER for proposed STP Units 3 and 4 also did not distinguish between OBT and tritiated water, and Intervenors' initial petition, which challenged the Applicant's analysis of tritium impacts, did not raise the issue of OBT. *See* NRC Staff's Answer to MCR Contentions at 18-19. However, we agree with Intervenors that Contention MCR-1 is timely. It is based on new information — the revised ER now discusses impacts of radionuclide discharges in general, whereas earlier versions of the ER did not, and it omits a discussion of OBT within the context of the new discussion. *See* Intervenors' MCR Reply at 2-3.

[264] Intervenors' MCR Reply at 1-2.

[265] Intervenors MCR Contentions at 3 (citing Makhijani Report).

[266] *See* Makhijani Report at 1-2.

[267] Applicant's Answer to MCR Contentions at 7.

[268] ER Letter, Attach., ER § 5.2.

[269] 9.375 times lower.

2. MCR-2 — Monitoring and Minimum Quality Standards for Relief Well Discharge

> The ER does not include monitoring for MCR relief well discharge quality nor are there minimum water quality standards applied to these discharges.[270]

Contention MCR-2 alleges that the Applicant's TPDES permit fails to impose minimum quality standards or monitoring of the Applicant's discharges from the MCR relief wells.[271] Intervenors' expert, Dr. Ross, complains that the Applicant's "TPDES Permit No. WQ001908000 authorizes discharges from reservoir relief wells . . . [with] no requirements, minimum standards, or permit limits for monitoring relief well discharge quality."[272] Intervenors further state, "[t]he failure to address the means to monitor and control the discharges from the MCR relief wells is a material omission and the basis for an admissible contention."[273]

Both the Applicant and NRC Staff assert that this contention is outside the scope of this proceeding because it challenges the terms of the Applicant's TPDES permit.[274] They also argue that Contention MCR-2 fails to raise a genuine dispute because the ER does analyze the environmental impact of seepage from the MCR, and Intervenors do not challenge the existing analysis or conclusions[275] or suggest any basis for requiring additional monitoring or standards.[276] Intervenors argue that Contention MCR-2 is within the scope of the proceeding because the environmental effects of permitted discharges still must be evaluated, and the TPDES permit "does not eliminate the duty to evaluate discharges from the unmonitored relief wells."[277] As Intervenors clarified at oral argument, through Contention MCR-2, they seek monitoring of relief well discharge to determine if that discharge will have environmental impacts.[278]

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[270] Intervenors' MCR Contentions at 4.

[271] *Id.*

[272] Intervenors' MCR Contentions, Attach., Letter from Lauren Ross, Ph.D., to Robert Eye (Dec. 14, 2009) [hereinafter Ross Report].

[273] Intervenors' MCR Contentions at 4.

[274] Applicant's Answer to MCR Contentions at 10-11; NRC Staff's Answer to MCR Contentions at 25.

[275] NRC Staff's Answer to MCR Contentions at 25-26.

[276] Applicant's Answer to MCR Contentions at 9-10. Additionally, NRC Staff argues that the contention is not timely because the terms of the TPDES permit were previously available. NRC Staff's Answer to MCR Contentions at 23. However, we agree with Intervenors that Contention MCR-2 is timely because it alleges omissions based on new information, i.e., the ER revisions that purport to address the omissions alleged in original Contention 8. *See* Intervenors' MCR Reply at 4.

[277] Intervenors' MCR Reply at 5.

[278] Tr. at 873-74.

In ER § 5.2.3, the Applicant evaluates the environmental impacts of discharges from proposed STP Units 3 and 4 into the MCR. That evaluation concluded that the environmental impacts of seepage, including MCR relief well discharge, would be small.[279] Intervenors' dispute is not with the Applicant's evaluation of these discharges, but rather with the terms and conditions of the Applicant's TPDES permit that authorizes discharges from these relief wells. As we have noted elsewhere, those concerns are not properly before us, but instead are solely matters that must be addressed with the State of Texas and the U.S. Environmental Protection Agency.[280] Therefore, Contention MCR-2 is not within the scope of this proceeding, as 10 C.F.R. § 2.309(f)(1)(iii) requires.

3. MCR-3 — MCR Water Level Impacts

The ER fails to account for operational impacts on the MCR's water level.[281]

Contention MCR-3 asserts that the Applicant's ER fails to address impacts of water levels in the MCR from operation of proposed STP Units 3 and 4.[282] Intervenors maintain the Applicant's operation of all four units will result in a higher water level in the MCR, which in turn will increase the seepage rate.[283] From this, Intervenors assert that "impacts on seepage rates from such operational increases should be addressed in the ER in order to determine, *inter alia,* the overall increases in water consumption needed to maintain the MCR within design specifications."[284]

Both the Applicant and NRC Staff assert that Intervenors have not challenged the analysis or conclusions in the ER regarding seepage rate.[285] The Applicant states that the evaluation Intervenors request in Contention MCR-3 is already in the ER: "this ER section provides the seepage rate for a water level of 49 feet above MSL (5700 acre-ft/yr), which is the water level of the MCR during operation of all four units."[286] The Applicant further asserts that the critical component for environmental impacts is the low concentrations of pollutants in the MCR, not the

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[279] Applicant's Answer to MCR Contentions at 9.

[280] As we discussed extensively in a previous order, the NRC has no authority either to regulate effluent discharges that are subject to TPDES permit limits, or to require the Texas Commission on Environmental Quality (TCEQ) to adopt certain discharge limits. *See* LBP-09-25, 70 NRC at 884-85.

[281] Intervenors' MCR Contentions at 4.

[282] *Id.* at 4-5.

[283] *Id.* at 4.

[284] *Id.*

[285] Applicant's Answer to MCR Contentions at 11; NRC Staff's Answer to MCR Contentions at 27-28.

[286] Applicant's Answer to MCR Contentions at 11.

MCR water level or the MCR seepage rate, and that Intervenors therefore have not challenged the impact conclusions.[287] Intervenors counter that operation of proposed STP Units 3 and 4 would cause some increase in the MCR level, even if the MCR stays within the design level, and that any such fluctuation should be accounted for in the ER.[288]

The Applicant's revised ER provides seepage rate information. Because Intervenors do not dispute the Applicant's projection of low concentrations of pollutants in the seepage water, Contention MCR-3 fails to demonstrate a genuine dispute with the Applicant, as 10 C.F.R. § 2.309(f)(1)(vi) requires.

4. MCR-4 — Water Quality Impacts

> The Environmental Report does not fully evaluate the water quality nor does it account for the environmental impacts of all nonradioactive contaminants, including salinity and total dissolved solids (TDS), in the MCR and the seepage water from the MCR.[289]

Contention MCR-4 asserts that the ER does not fully evaluate water quality impacts, including the environmental impacts of nonradioactive contaminants, in the MCR and in seepage from the MCR.[290] Specifically, Intervenors assert that the Applicant's TPDES permit does not require monitoring or treatment for all nonradioactive contaminants, and that the ER does not adequately characterize total dissolved solids ("TDS"), particularly during "critical periods," salinity, and toxic metal concentrations in the MCR.[291] More specifically, Intervenors' expert, Dr. Ross, claims that the ER "does not provide a relationship from which TDS could be estimated based on conductivity measurements," and "[s]ince it does not estimate TDS, it also does not evaluate the environmental consequences from discharge of water from the MCR with an estimated TDS."[292] In addition, Dr. Ross faults the ER for failing to evaluate the environmental consequences of

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[287] *Id.* at 12. NRC Staff agrees with the Applicant that Intervenors have not supported their assertion that additional calculations are necessary. *See* NRC Staff's Answer to MCR Contentions at 30.

[288] Intervenors' MCR Reply at 5-6. At oral argument, Intervenors clarified that their concern is that higher MCR levels would lead to higher seepage rates, which would in turn lead to higher amounts of contaminants entering the groundwater. *See* Tr. at 882-83. However, the Applicant's revised ER makes clear (as the original ER did not) that the water level of 49 feet reflects the operation of all four units.

[289] Intervenors' MCR Contentions at 5.

[290] *Id.*

[291] *Id.* at 5-6.

[292] *Id.* at 6 (quoting Ross Report at 3).

discharges during hot dry periods of low flow, which is the time when higher MCR specific conductance would make such a discharge most likely.[293]

The Applicant and NRC Staff argue that this contention is outside the scope of this proceeding because it challenges the terms and conditions of the Applicant's TPDES permit[294] and fails to raise a genuine dispute because it does not mount a challenge to the Applicant's analysis in the ER or mischaracterizes that analysis.[295] With respect to "critical periods," the Applicant claims that its TPDES permit prohibits it from discharging from the MCR during periods when the Colorado River is at low flow and is subject to tidal influences near the Applicant's site.[296] Both the Applicant and NRC Staff assert that Intervenors have not shown how periods of low flow are material to the environmental impacts analysis.[297] NRC Staff also notes that the Applicant, in an RAI response, explained how it converted its measurements of conductivity to TDS.[298]

Intervenors respond that Contention MCR-4 is within the scope of the proceeding because it concerns, not the terms of the TPDES permit, but instead the ER's discussion of water quality impacts of nonradioactive contaminants.[299] Intervenors also contend that discharges of lead, molybdenum, and vanadium present "a valid water quality issue that should be included in the ER" and that the ER provides no factual support for the proposition that TDS concentrations during droughts are irrelevant because of tidal influences near the STP site.[300]

We conclude that, contrary to Intervenors' claims, the ER evaluates the environmental impacts of MCR water quality, including MCR seepage, in new ER §§ 5.2.3 and 5.4.1. In particular, the environmental impacts of TDS, salinity, and metal concentrations in the MCR are addressed in ER § 5.2.3. Intervenors have not challenged the Applicant's statement that variations in TDS concentrations during "critical periods" are insignificant,[301] but instead seek to challenge the actual terms and conditions of the Applicant's TPDES Permit, which are not properly before us.[302] Thus, the contention is outside the scope of this proceeding,

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[293] Ross Report at 3.

[294] Applicant's Answer to MCR Contentions at 13-14; NRC Staff's Answer to MCR Contentions at 32-33.

[295] Applicant's Answer to MCR Contentions at 14-16; NRC Staff's Answer to MCR Contentions at 33-35.

[296] Applicant's Answer to MCR Contentions at 16.

[297] *Id.*; NRC Staff's Answer to MCR Contentions at 35.

[298] NRC Staff's Answer to MCR Contentions at 35.

[299] Intervenors' MCR Reply at 6. Intervenors, however, admit that the contention is not based on new information in the November ER revisions, as opposed to the original ER. *See* Tr. at 895-96.

[300] Intervenors' MCR Reply at 7-8.

[301] *See* Applicant's Answer to MCR Contentions at 16.

[302] *See supra* note 280 and accompanying text.

contrary to 10 C.F.R. § 2.309(f)(1)(iii). Additionally, there is no genuine dispute with a material fact that would satisfy 10 C.F.R. § 2.309(f)(1)(vi). Accordingly, Contention MCR-4 is not admissible.

5. MCR-5 — Monitoring and Control of MCR Water Seepage Rate, Quantity, and Quality

> The Applicant fails to state how the MCR water seepage rate, quantity, and quality will be monitored and controlled.[303]

Contention MCR-5 asserts that the ER does not discuss monitoring and control of MCR water seepage rate, quantity, and quality, particularly under drought conditions.[304] The Applicant asserts that Intervenors neither challenge the results of current water quality monitoring nor articulate a basis for additional monitoring.[305] NRC Staff disputes Intervenors' position by asserting that the Applicant did analyze the impacts of seepage.[306] NRC Staff also states that Intervenors provide no support for their claim that water quality would be affected were the MCR to be maintained at lower levels.[307] With regard to the allegedly altered statement in the revised ER concerning discharge and recharge, the Applicant asserts that it is not significantly different from a statement in the prior version, while NRC Staff argues that, in any case, Intervenors have not shown how the change affects the Applicant's impact conclusions.[308] Intervenors respond that the ER does not discuss discharges associated with blowdown and that the revised ER statement shows "a reduction in the total amount of water that seeps from the MCR that will recharge groundwater," claiming this could have significant environmental effects.[309]

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[303] Intervenors' MCR Contentions at 7.

[304] *Id.* Contention MCR-5 also challenged alleged changes in language between the original ER and the November 2009 ER revisions. *Id.* at 7-8. Intervenors' expert, Dr. Ross, stated that the original ER included a sentence that read: "Discharge to the environment from the MCR occurs from seepage through the reservoir floor to the groundwater." Ross Report at 2. She contrasted this with language in the revision stating that "the remaining 32% of MCR leakage that isn't collected in relief wells discharges to the Colorado River and that statement contradicts the original assertion that the MCR recharges groundwater." *Id.* Intervenors, however, subsequently conceded that the other, allegedly deleted sentence they noted in Contention MCR-5 was merely moved to another section. Intervenors' MCR Reply at 9; *see* Tr. at 908-09.

[305] Applicant's Answer to MCR Contentions at 17.

[306] NRC Staff's Answer to MCR Contentions at 37.

[307] *Id.*

[308] Applicant's Answer to MCR Contentions at 18-19; NRC Staff's Answer to MCR Contentions at 37-38.

[309] Intervenors' MCR Reply at 8.

We conclude that the Applicant's ER describes routine monitoring of pollutants in the MCR, and Intervenors have not contested the method or quality of that monitoring. As we have previously noted, the Applicant has stated that the MCR is the source of pollutants in the shallow groundwater adjacent to the MCR.[310] Accordingly, the Applicant reasons, if the concentrations of pollutants in the MCR are lower than pertinent environmental standards, the concentrations of pollutants in the groundwater will also be lower than pertinent environmental standards.[311] Therefore, the Applicant maintains, discharges from the MCR to groundwater will not have an adverse environmental impact.[312] Intervenors do not contradict this analysis, nor do they provide any regulatory authority for their assertion that the Applicant must make additional calculations to "determine what the increase in seepage rate would be before that impact is determined to be significant."[313]

Intervenors' argument that the ER does not attempt to account for water quality variations based on reduced MCR levels also fails to demonstrate an adequate factual basis for admission of this new contention. The Applicant has stated that it is not allowed to discharge from the MCR when river levels are low. Intervenors have not contested the Applicant's assertion that, because discharges would thus not occur during low flow conditions in the river, any increases in the concentrations of TDS and other contaminants in the MCR during a drought would not have a significant environmental impact. Because Contention MCR-5 does not raise a genuine dispute with the application, it is not admissible for failure to satisfy 10 C.F.R. § 2.309(f)(1)(vi).

IV. CONCLUSION AND ORDER

For the foregoing reasons:

A. The Applicant's motions to dismiss previously admitted Contentions 8, 9, 14, 16, and 21 are *granted* and those contentions are now *dismissed.*

B. Intervenors' requests to admit amended Contentions 8 and 21 are *denied.*

C. Intervenors' requests to admit Contentions CL-1, MCR-1, MCR-2, MCR-3, MCR-4, and MCR-5 are *denied.*

D. Intervenors' Contentions CL-2, CL-3, and CL-4 are reformulated as Contention CL-2, and *admitted.*

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[310] Applicant's Answer to MCR Contentions at 17.

[311] *Id.*

[312] *Id.*

[313] Ross Report at 2.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Michael M. Gibson, Chairman
ADMINISTRATIVE JUDGE

Gary S. Arnold
ADMINISTRATIVE JUDGE

Randall J. Charbeneau
ADMINISTRATIVE JUDGE

Rockville, Maryland
July 2, 2010

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Eric J. Leeds, Director

In the Matter of	**Docket Nos. 50-250** **50-251** **(License Nos. DPR-31,** **DPR-41)**
FLORIDA POWER & LIGHT COMPANY **(Turkey Point Nuclear Generating Plant, Units 3 and 4)**	**July 9, 2010**

The Petition requested that the NRC issue a "Notice of Violation and Imposition of Civil Penalty" in the amount of $1,000,000 and issue a confirmatory order modifying Florida Power & Light Co. (FPL) License Nos. DPR-31 and DPR-41. During a teleconference July 10, 2009, the Petitioner amended the original petition by asking the NRC, instead of issuing a civil penalty to FPL, to require FPL to create a monetary fund to enhance FPL's employee concerns program by generating cash rewards to employees who raise safety concerns; and raised a concern regarding an employee retention bonus agreement used by FPL, which you claim contains language that violates 10 C.F.R. § 50.7(f). Finally, the Petitioner filed a separate petition pursuant to 10 C.F.R. § 2.206 to NRC Chairman Gregory B. Jaczko on January 5, 2010. In this petition, it was requested that the NRC issue a confirmatory order requiring FPL to immediately place the Turkey Point and St. Lucie facilities in cold shutdown until such time as the NRC can make a full assessment of the work environments at those facilities and determine whether employees at those facilities are free, and feel free, to raise nuclear safety concerns to FPL management or directly to the NRC without fear of retaliation. The NRC combined Petitioner's second petition with the original petition and amendment.

The final Director's Decision was issued on July 9, 2010. The Petitioner raised issues related to weaknesses in the ECP as a means of getting issues entered

into the CAP and "chilling effects" that exist at Turkey Point and are spreading to St. Lucie where employees are dissuaded from freely raising nuclear safety concerns to the NRC or within FPL for fear of retaliation by FPL management. The NRC held a public meeting on October 20, 2009 (ADAMS Accession No. ML093090274), at the Region II Office in Atlanta, GA, to discuss FPL's processes for addressing employee concerns and planned, fleet-wide corrective actions for addressing FPL-identified weaknesses. The Licensee indicated that it planned to implement eighty-six corrective actions to address the weaknesses. Problem Identification and Resolution inspection reports 05000335/2010006 and 05000389/2010006 for St. Lucie dated April 19, 2010 focused on these concerns.

The NRC has performed Problem Identification and Resolution inspections at Turkey Point and St. Lucie that cover the time frames indicated by the Petitioner. The inspections concluded that the CAP processes and procedures were effective and thresholds for identifying issues were appropriately low. Furthermore, the NRC is aware of the actions that the Licensee is taking to address the FPL-identified weaknesses, and the NRC will continue to assess the effectiveness of these actions during the next Problem Identification and Resolution inspection. The NRC determined that FPL had made progress in improving all areas addressed by the improvement plan. The NRC also determined that employees felt free to raise concerns without fear of retaliation. As stated in Problem Identification and Resolution inspection reports 05000335/2010006 and 05000389/2010006 for St. Lucie dated April 19, 2010, the NRC concluded that based on discussions and interviews with plant employees from various departments, individuals remained aware of the processes for raising concerns, were not reluctant to raise safety concerns to management or the NRC, had initiated CAP items, and participated in the safety culture surveys. Therefore, the NRC concluded that public health and safety have not been affected by Licensee-identified weaknesses in the ECP. The NRC has also reviewed FPL's retention bonus agreement and has concluded that it does not violate 10 C.F.R. § 50.7(f).

Accordingly, NRC denied the Petitioner's requests as stated above.

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

I. INTRODUCTION

By letter dated January 11, 2009, and amended on July 10, 2009, Mr. Thomas Saporito ("Petitioner") filed a petition pursuant to section 2.206 of Title 10 of the *Code of Federal Regulations* (10 C.F.R. § 2.206), to the Executive Director for Operations of the U.S. Nuclear Regulatory Commission (NRC) concerning Turkey Point Nuclear Generating Station, Units 3 and 4. The Petitioner also filed

a separate petition pursuant to 10 C.F.R. § 2.206 addressed to NRC Chairman Gregory B. Jaczko on January 5, 2010. This petition concerned Turkey Point and St. Lucie. The NRC has combined this second petition with the original petition and amendment.

Management Directive 8.11, "Review Process for 10 C.F.R. § 2.206 Petitions," issued October 2000 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML041770328), outlines the procedure used by the NRC to process petitions filed under 10 C.F.R. § 2.206. This procedure aims to provide appropriate participation by petitioners in, and opportunities for the public to observe, the NRC's decision-making activities related to a 10 C.F.R. § 2.206 petition.

A. Action Requested

In the January 11, 2009 petition, the Petitioner requested that the NRC take the following actions against FPL, the licensed operator for the Turkey Point facilities:

(1) Issue a "Notice of Violation and Imposition of Civil Penalty" in the amount of $1,000,000.

(2) Issue a confirmatory order modifying FPL License Nos. DPR-31 and DPR-41 as follows:

   (a) Effective February 1, 2009, FPL will integrate into its overall program for enhancing the work environment and safety culture at Turkey Point a "Cultural Assessment" conducted by an independent contractor. The Cultural Assessment shall include both a written survey of employees, including supervision and management, and baseline contractors, and confidential interviews of selected individuals. The first assessment shall be completed no later than the second quarter of 2009 and will be performed at least three more times at intervals of 18 to 24 months. In addition, annual surveys will be conducted and shall include, but not be limited to, annual surveys through at least the year 2020. Prior to conducting each annual survey, the licensee shall identify to the NRC Regional Administrator the departments and divisions to be surveyed. The licensee shall submit to the NRC for review all Cultural Assessment results, including all intermediate annual surveys. In addition, within 60 days of receipt of any survey results, the licensee shall provide to the NRC Regional Administrator any plans to address issues raised by the survey results.

   (b) FPL shall conduct annual ratings of supervisors and managers by employees through a written assessment tool and provide the same to the NRC through the year 2020.

(c) FPL shall conduct a mandatory continuing training program for all supervisors and managers which shall include:

1. Scheduled training on building positive relationships. The training program shall incorporate the objective of reinforcing the importance of maintaining a safety conscious work environment and assisting managers and supervisors in dealing with conflicts in the work place in the context of safely conscious work environment. The training program shall also include a course entitled "Safely Talking to Each Other" which shall explain how to properly deal with safety concerns raised at Turkey Point.

2. Annual training on the requirements of 10 CFR 50.7 and Title 42 of the *United States Code Annotated,* Section 5851 (42 USCA 5851), through the year 2020, including, but not limited to, what constitutes "protected activity" and what constitutes "discrimination" within the meaning of 10 CFR 50.7 and 42 USCA 5851, and appropriate responses to the raising of safety concerns by employees. Moreover, the training shall stress the freedom of employees in the nuclear industry to raise safety concerns without fear of retaliation by their supervisors or managers.

(d) The licensee shall issue a site-wide publication informing all employees and contractor employees of this Confirmatory Order as well as their rights to raise safety concerns to the NRC and to their management without fear of retaliation.

During a teleconference on July 10, 2009, the Petitioner amended the original petition to request that the NRC require FPL to create a monetary fund rather than issuing a civil penalty to FPL. This fund would be used to enhance FPL's employee concerns program (ECP) by generating cash awards to employees who raise safety concerns; providing wages and benefits to workers who have made retaliation complaints until their complaints have been reviewed; providing training to plant workers on the ECP and discrimination review process; and upgrading the ECP office facilities.

By letter to Chairman Gregory B. Jaczko dated January 5, 2010, the Petitioner filed a separate petition referencing a January 4, 2010, Florida Public Service Commission document. This document alleges wrongdoing by executive management at the very highest levels of FPL over the protests of several employees. The Petitioner stated that the chilled environment, which discourages employees from voicing safety concerns, that currently exists at Turkey Point has spread to St. Lucie over the years. The Petitioner requested that the NRC issue a confirmatory order requiring FPL to immediately place the Turkey Point and St. Lucie facilities in cold shutdown until such time as the NRC can make a full assessment of the work environments at those facilities and credibly determine whether employees

at those facilities are free, and feel free, to raise nuclear safety concerns to FPL management or directly to the NRC without fear of retaliation for so doing. The NRC did not take immediate action based on the Staff's determination that there was no immediate threat to public health or safety.

The NRC's acknowledgment letter to the Petitioner, dated November 19, 2009 (ADAMS Accession No. ML091880900), addressed the original petition dated January 11, 2009, and its amendment dated July 10, 2009. In this letter, the NRC accepted for review pursuant to 10 C.F.R. § 2.206, concerns regarding the following nine issues raised by the Petitioner:

(1) Management attention to the ECP does not meet expectations; management's awareness of the ECP is superficial, and management has not emphasized the program values to employees.

(2) The ECP is of low quality and does not give the impression that it is important to management.

(3) There is a perception problem with the ECP in the areas of confidentiality and potential retribution. The perception remains as evidenced by surveys, interviews, and the high percentage of anonymous concerns. Previous surveys and assessments identified this perception, but little or no progress has been made in reversing this perception.

(4) The ECP was most frequently thought to be a mechanism to use in addition to discussing concerns with the NRC and not as the first alternative to the Correction Action Program (CAP).

(5) While meeting most of the program requirements and having a technically qualified individual in the ECP coordinator position, the overall effectiveness of the program is marginal.

(6) The ECP representative has very low visibility or recognition in the plant and has not been integrated into the management team or plant activities.

(7) The large percentage of concerns submitted anonymously hampers feedback to concerned individuals. The written feedback process to identified individuals is impersonal and lacks feedback mechanisms for the ECP coordinator to judge the program's effectiveness.

(8) The ECP process also does not provide assurance that conditions adverse to quality identified in the ECP review process would get entered into the CAP, creating potential to miss correction and trending opportunities.

(9) An employee retention bonus agreement used by FPL contains language that violates 10 CFR 50.7(f).

Furthermore, the NRC also consolidated with the January 11, 2009 petition the

Petitioner's concern raised in a separate petition dated January 5, 2010, that the chilled environment, which discourages employees from voicing safety concerns, that currently exists at Turkey Point has spread to St. Lucie. The agency took this step for the following two reasons:

(1) The issues are similar.

(2) Mr. Saporito was the principal external stakeholder for both petitions.

B. Petitioner's Basis for the Requested Actions

The Petitioner explained that the Licensee completed a self-assessment of the Turkey Point facility and also performed an assessment of the ECP at Turkey Point. The purpose of the assessment was for the Licensee to understand and address weaknesses in the ECP. The assessment identified eight weaknesses. The Petitioner believes that there are weaknesses in the ECP due to fear of retaliation when a safety issue is raised to FPL management. The Petitioner concluded that at least three FPL employees allege that they have been retaliated against for having raised safety concerns at one or more of FPL's nuclear power plants in the last 12-month period. The Petitioner noted the following chronology of events:

(1) On July 16, 1996, the NRC issued a Notice of Violation and Proposed Imposition of Civil Penalty for $100,000 to FPL for retaliating against one of its employees for raising safety concerns at Turkey Point.

(2) On June 5, 2003, the NRC issued a Notice of Violation to FPL for retaliating against one of its employees for raising safety concerns at Turkey Point.

(3) On July 6, 2007, the NRC issued the NRC Problem Identification and Resolution inspection report that stated that inspectors noted reluctance by several departments to utilize the ECP because licensee employees felt that the program only represented management's interest.

(4) On January 7, 2009, the Florida Public Service Commission issued Order No. PSC-09-0024-FOF-EI which concluded that at least one other FPL contractor employee was aware of the "hole drilling" incident at Turkey Point but failed to report the incident in a timely manner. The Petitioner noted that this issue was not reported by the employee due to fear of retaliation from FPL management.

(5) On January 4, 2010, three concerned employees of NextEra Energy Resources wrote a letter to the Florida Public Service Commission stating that "the culture of cover up and intimidating employees into being quiet still persists here at the FPL Group of companies and retaliation is a real fear."

C. NRC Petition Review Board's Meeting with the Petitioner

On March 19 (ADAMS Accession No. ML090840318), May 7 (ADAMS Accession No. ML092860275), and July 10, 2009 (ADAMS Accession No. ML092860099), the NRC Office of Nuclear Reactor Regulation's Petition Review Board and the Petitioner held conference calls to clarify the basis for the petition. The NRC Staff considers transcripts of these meetings to be supplements to the petition. These transcripts are also available for 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 also accessible from ADAMS in the 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 1-800-397-4209, or 301-415-4737, or by e-mail to PDR.resource@nrc.gov.

By letter dated April 22, 2009 (ADAMS Accession No. ML091100274), the NRC Staff requested that FPL provide information related to the petition, more specifically, a copy of a blank retention bonus agreement referenced by Mr. Saporito. This information was needed for the NRC Staff to complete its review of item (9), as stated in the November 19, 2009 acknowledgment letter. FPL responded on April 28, 2009 (ADAMS Accession No. ML100640252), and the information provided was considered by the Staff in its evaluation of the petition.

The NRC sent a copy of the proposed Director's Decision to the Petitioner and to Florida Power & Light Company (FPL, the Licensee) for comment by letters dated April 28, 2010. The NRC Staff received comments on May 28, 2010, from the Petitioner. No comments were provided to the NRC Staff from FPL. The comments and the NRC Staff's response to them are included in the Director's Decision.

II. DISCUSSION

Issues (1)-(8) concern the effectiveness of the Turkey Point ECP and the Licensee's response to issues identified through the ECP and CAP. Operating reactor licensees are not required to implement an ECP, but are required by 10 C.F.R. Part 50, Appendix B, Criterion XVI to establish and implement an effective CAP. The NRC performs Problem Identification and Resolution biennial team inspections with annual followup of selected issues at licensed facilities. The goal of these inspections is to establish confidence that the licensee is effectively detecting, correcting, and preventing problems that could impact public health and safety. During the Problem Identification and Resolution inspections, the NRC reviews a sample of employee concerns that were raised through the CAP and

ECP as part of its assessment of the Licensee's compliance with NRC regulations, regardless of which program the employee uses.

In the latter half of 2008, the Licensee conducted a twenty- to thirty-question survey of the safety-conscious work environment (SCWE), fleet-wide. More than 400 employees responded at each site. Through these surveys FPL identified weaknesses in its program for identifying and correcting issues raised by employees, which included dissatisfaction with the three primary avenues for raising concerns internally (management, CAP, and ECP). With regard to the ECP, the results showed nuclear plant employees are familiar with the ECP; however, approximately 20-25% of the survey respondents indicated that they lack confidence that the ECP will address their concerns or maintain their confidentiality. A similar percentage of employees also believe that management does not support the ECP.

Based on public conversations between the NRC's Region II office and the Licensee, FPL has taken a number of appropriate actions to address these ECP issues at both Turkey Point and St. Lucie, including appointment of a new FPL corporate Nuclear Safety Culture Project Lead, relocation of the offices to address accessibility concerns, implementation of monthly meetings with the new Chief Nuclear Officer, and revision of the program procedures to ensure concerns are addressed appropriately and feedback is obtained from stakeholders. Notably, the process was revised to perform 3-month followup reviews of corrective actions for nuclear safety concerns brought to the ECP to assess the effectiveness.

The NRC held a public meeting on October 20, 2009 (ADAMS Accession No. ML093090274), at the Region II Office in Atlanta, GA, to discuss FPL's processes for addressing employee concerns and planned, fleet-wide corrective actions for addressing FPL-identified weaknesses. The Licensee indicated that it planned to implement eighty-six corrective actions to address the weaknesses.

As stated in Problem Identification and Resolution inspection reports 05000335/2010006 and 05000389/2010006 for St. Lucie dated April 19, 2010, the NRC concluded that based on discussions and interviews with plant employees from various departments, individuals remained aware of the processes for raising concerns, were not reluctant to raise safety concerns to management or the NRC, had initiated CAP items, and participated in the safety culture surveys. These interviews also revealed that plant workers were knowledgeable of the various available methods for raising nuclear safety concerns. Furthermore, the workers communicated recent improvements in station supervision's support of the workers raising issues. None of the workers indicated that they were aware of any examples of being retaliated against for raising safety concerns.

The Problem Identification and Resolution inspection reports also summarized the corrective actions presented to the NRC on October 20, 2009, and the results of those corrective actions. The NRC concluded that FPL initiated a comprehensive plan to improve its safety culture, starting with a root-cause

evaluation of safety culture issues identified in corporate surveys. From this evaluation, FPL took a number of actions to improve corporate culture, including formalizing the management of employee concerns, taking actions to focus more attention on industrial safety work orders, and improving management oversight of station backlogs and preventive maintenance change requests. At a higher level, FPL is initiating a review of nuclear safety culture issues by the corporate nuclear review board, benchmarking SCWE at other facilities, and planning for effectiveness reviews. The inspections confirmed that FPL-scheduled actions had been completed, including the training of senior managers on SCWE and the initiation of routine management reviews on safety culture issues.

The inspectors also met with the newly appointed station ECP coordinator and the ECP manager. The ECP coordinator described activities that would facilitate more awareness and understanding of the ECP including introducing the program with onsite staff and contractor groups at departmental meetings. Furthermore, FPL has recently relocated the ECP office within the plant protected area, and procedures had been developed for uptake of concerns and management of concern resolution. The new process requires closeout of the concern with the concerned individual, typically in a face-to-face meeting.

On April 20, 2010, a public meeting was conducted at the Region II Office in Atlanta, GA, to discuss FPL's progress. As of that date, the Licensee indicated that it had implemented seventy-one of the eighty-six corrective actions and is completing all actions on schedule. The NRC provided a summary of this public meeting, which is publicly available in ADAMS (ADAMS Accession No. ML101110727).

Although the Licensee has identified weaknesses in the ECP at Turkey Point and St. Lucie, the NRC has not identified any current substantive issue relating to SCWE or the CAP. Therefore, the NRC does not believe Mr. Saporito's proposed enforcement action is appropriate at this time. The Licensee is taking action to improve the effectiveness of the ECP. The NRC's Region II office is scheduled to complete its next Problem Identification and Resolution inspection at Turkey Point in May 2010. The NRC's Region II office will continue to monitor the Turkey Point and St. Lucie CAPs, including the eight items identified by the Petitioner and the actions the Licensee is taking to address the FPL-identified weaknesses in the ECP. The NRC's conclusions will be recorded in the next Problem Identification and Resolution inspection reports, which will be made available on the NRC Web site http://www.nrc.gov/reactors/operating/oversight.html.

Regarding item (9), Mr. Saporito raised concerns about an FPL employee retention bonus agreement that contains a clause that states: "The Employee shall not, at any time in the future and in any way, disparage the Company . . . or make any statements that may be derogatory or detrimental to the Company's good name or business reputation . . . ." Mr. Saporito asserts that this clause violates 10 C.F.R. § 50.7(f).

The purpose of 10 C.F.R. § 50.7(f) is to ensure that licensees do not enter into employment agreements that would prohibit, restrict, or otherwise discourage an employee or former employee from providing the NRC with information of regulatory significance. "Nondisparagement" clauses similar to the one in FPL's retention bonus agreement are common in employment agreements. As a general matter, employers and their employees are free to formulate agreements in the context of their employment relationship and within the parameters of the lawful right of parties to contract with each other. For this reason, the NRC should not interfere with these agreements unless it finds such a clause violates 10 C.F.R. § 50.7(f), or a clause that does not violate 10 C.F.R. § 50.7(f) on its face is applied in a fashion that prevents or retaliates against an employee for engaging in protected activities such as communicating with the NRC.

The NRC has reviewed the FPL employee retention bonus agreement referenced by Mr. Saporito. The language of the agreement makes no mention of providing information to, or cooperating with, NRC or any other governmental agency. Similarly, it makes no reference to engaging in activity that is protected by NRC enabling statutes. For these reasons, the NRC has determined that the agreement does not violate 10 C.F.R. § 50.7(f). However, the agreement strays from the guidance the NRC has provided licensees for drafting employment and settlement agreements, available on the NRC Office of Enforcement website at http://www.nrc.gov/about-nrc/regulatory/enforcement/examples-of-restrictive-terms.pdf, because it does not include specific language making clear that employees can freely engage in protected activities. While not required by 10 C.F.R. § 50.7(f), settlement agreements that contain language reinforcing employees' rights to raise safety concerns and communicate with the NRC avoid the possibility of being construed in a way that could violate 10 C.F.R. § 50.7(f). The NRC has learned that FPL has discontinued use of the bonus agreement referenced by Mr. Saporito, and that future FPL employment agreements will contain language specifically addressing employees' rights under 10 C.F.R. § 50.7, "Employee Protection," in order to avoid any perception that employees are prohibited, restricted, or discouraged from raising safety concerns.

A. NRC Response to Comments on the Proposed Director's Decision

This section documents the NRC Staff's response to Mr. Saporito's comments on the proposed Director's Decision. The NRC issued the proposed Director's Decision on April 28, 2010 (ADAMS Accession No. ML100630413). The NRC received comments from the Petitioner on May 28, 2010 (ADAMS Accession No. ML101760181). The Licensee did not provide any comments to the NRC on the proposed Director's Decision. The NRC Staff has amended the proposed Director's Decision to acknowledge the Petitioner's comments; however, the NRC Staff determined that the comments provided by Mr. Saporito did not

provide any relevant additional information and support for the petition that had not already been considered. Thus, the comments did not change the conclusion of the proposed Director's Decision and the final Director's Decision denies the Petitioners' request for enforcement action. The comments and NRC Staff's response to them are discussed below:

B. Summary of Comments

Mr. Saporito states,

> notably, NRC determines the quality of a licensee's SCWE by the effectiveness of the licensee's CAP. Therefore, where a licensee fails to properly maintain an effective CAP, there cannot be a satisfactory SCWE at its nuclear facility. Moreover, where a licensee is found by NRC to have discriminated against its employees for raising nuclear safety concerns, the licensee cannot demonstrate the existence of a satisfactory SCWE at its nuclear facility. Finally, where NRC fails to take adequate enforcement action against its licensee for failing to maintain an SCWE at its nuclear facilities, a chilling effect results and places public health and safety in jeopardy.

Mr. Saporito supports his conclusion by referencing violations and enforcement action taken by the NRC against Turkey Point and St. Lucie dating from 1996, and by referencing the FPL drop-in meetings on October 20, 2009, and April 20, 2010, to discuss concerns about FPL Nuclear Safety Culture and the ECP at Turkey Point and St. Lucie.

The Petitioner also noted that in a February 2008 inspection report, the NRC noticed an increasing trend in the cross-cutting theme of appropriate and timely corrective action indicating that the underlying weaknesses within the Problem Identification and Resolution cross-cutting area may not yet have been addressed or fully understood to ensure consistent and sustainable future performance. The NRC requested that FPL conduct an independent assessment of the effectiveness of the Licensee's corrective action program. Mr. Saporito continues by stating,

> As of June 2008, NRC completed its inspections to evaluate the effectiveness of FPL's corrective action program improvement initiatives which the agency had found to be deficient only (three months prior) and for the better part of the previous four assessment periods for the Turkey Point Nuclear Plant. Nonetheless, NRC advised FPL that overall corrective actions developed and implemented for issues were effective in correcting the problems and that employees felt free to raise concerns without fear of retaliation. The NRC considered this longstanding cross-cutting theme closed.

C. NRC Response to Comments

As stated earlier in this Director's Decision, operating reactor licensees are not required to implement an ECP, but are required by 10 C.F.R. Part 50, Appendix B, Criterion XVI to establish and implement an effective CAP. The NRC performs Problem Identification and Resolution biennial team inspections with annual followup of selected issues at licensed facilities. The goal of these inspections is to establish confidence that each licensee is effectively detecting, correcting, and preventing problems that could impact public health and safety. Based on the results of these inspections the NRC takes any appropriate enforcement action to ensure compliance with 10 C.F.R. Part 50, Appendix B, Criterion XVI.

In the Turkey Point mid-cycle calendar year 2006 assessment letter dated August 31, 2006 (ADAMS Accession No. ML062430288), the NRC identified a substantive cross-cutting issue in problem identification and resolution based on numerous examples of inadequate corrective action related to longstanding plant equipment deficiencies. However, the individual findings involved issues of very low safety significance. In response, FPL developed plans to improve the effectiveness of the CAP. Also, the NRC requested that FPL conduct an independent assessment of the effectiveness of the CAP. Normally, the NRC would have requested FPL to conduct a safety culture assessment since the same substantive cross-cutting issue was identified in four consecutive assessment letters. However, due to FPL already completing an assessment during the inspection period from January to December 2007, the NRC requested a more targeted independent assessment be completed. The purpose of the independent assessment was to help the Licensee identify issues with the CAP and improve the effectiveness of the CAP.

During the next eight calendar quarters, onsite and region-based NRC inspectors monitored plant activities to improve the CAP, and completed in-depth inspections and assessment activities in spring 2007 and summer 2008 to evaluate the effectiveness of FPL's efforts. These inspections included evaluations of the safety-conscious work environment. The inspection results were documented in Inspection Reports 05000250/2007008 and 05000251/2007008, 05000250/2008007 and 05000251/2008007, and 05000250/2008008 and 05000251/2008008, available on the NRC public website. The NRC also held public meetings with FPL in Atlanta, GA, to discuss the effectiveness of the actions to improve the CAP.

Based on these inspections and the extensive review of FPL's activities focused on improving the CAP that stretched over a 2-year period (June 2006 to June 2008), the NRC determined that FPL had made progress in improving all areas addressed by the improvement plan. The NRC also determined that employees felt free to raise concerns without fear of retaliation. At that point the NRC Staff considered the substantive cross-cutting issue closed.

Recently, the NRC issued two Notice of Violations to Turkey Point and St.

Lucie, each of which cited, in part, FPL's failure to implement corrective actions per 10 C.F.R. Part 50, Appendix B, Criterion XVI. The violation issued to Turkey Point does not reopen the substantive cross-cutting issue that was closed in 2008, but the NRC assessed the finding to determine if a cross-cutting aspect of Problem Identification and Resolution was applicable. As stated in the Turkey Point Final Significance Determination letter dated June 21, 2010 (ADAMS Accession No. ML101730313), the NRC determined that the Licensee properly identified the boraflex degradation issue and thoroughly evaluated the problems. Therefore, per Inspection Manual Chapter (IMC) 0310, "Components Within the Cross-Cutting Areas," Problem Identification and Resolution cross-cutting aspect P.1(c) is no longer applicable or valid. However, the NRC determined that the finding had a cross-cutting aspect per IMC 0310, Problem Identification and Resolution, P.1(d) since the Licensee did not take appropriate corrective actions to address safety issues and adverse trends in a timely manner, commensurate with their safety significance and complexity.

The NRC considers a cross-cutting aspect for all findings identified at a facility and when the NRC identifies four findings with the same cross-cutting aspect then it becomes a substantive cross-cutting issue. Currently, there are not four findings with the same cross-cutting aspect of Problem Identification and Resolution at Turkey Point or St. Lucie. These two violations identified at Turkey Point and St. Lucie will be tracked by NRC inspectors and evaluated during the next Problem Identification and Resolution inspection.

III. CONCLUSION

The Petitioner raised issues related to weaknesses in the ECP as a means of getting issues entered into the CAP and "chilling effects" that exist at Turkey Point and are spreading to St. Lucie where employees are dissuaded from freely raising nuclear safety concerns to the NRC or within FPL for fear of retaliation by FPL management.

The NRC has performed Problem Identification and Resolution inspections at Turkey Point and St. Lucie that cover the time frames indicated by the Petitioner. The inspections concluded that the CAP processes and procedures were effective and thresholds for identifying issues were appropriately low. Furthermore, the NRC is aware of the actions that the Licensee is taking to address the FPL identified weaknesses, and the NRC will continue to assess the effectiveness of these actions during the next Problem Identification and Resolution inspection. The NRC determined that FPL had made progress in improving all areas addressed by the improvement plan. The NRC also determined that employees felt free to raise concerns without fear of retaliation. Therefore, the NRC concludes that public health and safety have not been affected by Licensee-identified weaknesses

in the ECP. The NRC has also reviewed FPL's retention bonus agreement and has concluded that it does not violate 10 C.F.R. § 50.7(f).

Based on the above discussion, the Director of the Office of Nuclear Reactor Regulation has decided to deny the Petitioner's request to issue a Notice of Violation and Imposition of Civil Penalty or establishment of a monetary fund and a confirmatory order modifying FPL License Nos. DPR-31 and DPR-41. The actions the Licensee is taking make enforcement action unnecessary.

In addition, the NRC is denying the Petitioner's request to place the Turkey Point and the St. Lucie facilities in cold shutdown until such time as the NRC can make a full assessment of the work environments at those facilities and determine whether employees at those facilities are free, and feel free, to raise nuclear safety concerns to FPL management or directly to the NRC without fear of retaliation. As explained above, the NRC has assessed the work environment at these facilities and determined that there are no findings of significance and no threat to public health and safety associated with the identified weaknesses of the ECP at Turkey Point or St. Lucie.

As provided in 10 C.F.R. § 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

FOR THE NUCLEAR
REGULATORY COMMISSION

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 9th day of July 2010.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Eric J. Leeds, Director

In the Matter of	**Docket Nos. 50-282** **50-306** **(License Nos. DPR-42,** **DPR-60)**
NORTHERN STATES POWER COMPANY **(Prairie Island Nuclear Generating Plant, Units 1 and 2)**	**July 20, 2010**

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

I. INTRODUCTION

By letter to Mr. Bill Borchardt, Executive Director for Operations for the U.S. Nuclear Regulatory Commission (NRC), dated September 4, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093380574), Mr. David Sebastian (the Petitioner) filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 C.F.R.) § 2.206, "Requests for Action under this Subpart." On September 30, 2009, the Petitioner requested an opportunity to address the NRC Petition Review Board (PRB) to provide additional information supporting the petition. A teleconference was held on October 13, 2009, and a transcript is available for public review (ADAMS Accession No. ML093220182).

Publicly available records will be accessible from the ADAMS Public Electronic Reading Room on the NRC Web site http://www.nrc.gov/reading-rm/adams.html. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the reference

staff in the NRC Public Document Room by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail to PDR.Resource@nrc.gov.

II. ACTION REQUESTED

The Petitioner requested that the NRC take the following actions:

(1) Order Xcel Energy Inc. (Xcel) to cease and desist from its current arbitrary and capricious practice of using the Access Authorization and Fitness-for-Duty (AA/FFD) Programs for purposes other than their original intent, as they are being applied against him.

(2) Order compliance with the following:

  (A) the NRC's regulations at 10 CFR 73.56, "Personnel Access Authorization Requirements for Nuclear Power Plants";

  (B) the rationale described in the final rule "Access Authorization Program for Nuclear Power Plants" (RIN 3150-AA90), published in the *Federal Register* on April 16, 1991 (56 FR 18997); and

  (C) the Nuclear Energy Institute's (NEI) implementation guidance in NEI 03-01, "Nuclear Power Plant Access Authorization Program," Revision 2, issued October 2008.

(3) Grant the Petitioner access authorization without further delay to perform his accepted job tasks, with all record of said denial removed from any and all records, wherever found.

(4) Issue any other order, or grant any other relief, to which the Petitioner may have shown himself entitled.

A. Petitioner's Bases for the Requested Action

The Petitioner stated that Xcel is in violation of 10 C.F.R. § 73.56 in denying him access to the Prairie Island Nuclear Generating Plant using the AA/FFD Programs by basing the decision solely upon an existing tax lien. The Petitioner stated that Xcel failed to base the decision to grant or deny unescorted access authorization on a review and evaluation of all pertinent information. The Petitioner stated that Xcel failed to incorporate all three elements (i.e., background investigation, psychological assessment, and behavioral observation) of the unescorted access authorization program when making the decision to deny unescorted access and that this is contrary to the rationale for rulemaking, as discussed in 56 Fed. Reg. 18,997.

B. Determination for NRC Review Under 10 C.F.R. § 2.206

The PRB met on October 26 and December 2, 2009, to discuss the petition under consideration and determine whether it met the criteria for further review under the section 2.206 process. The PRB included NRC technical and enforcement staff, legal counsel, and an NRC senior-level manager as its chairperson. The PRB determined that the petition under consideration did, in part, meet the criteria established in NRC Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 Petitions," dated October 25, 2000, for acceptance into the 10 C.F.R. § 2.206 process. The PRB made the following initial recommendations:

- Item 1 met the criteria established in MD 8.11 for acceptance into the 10 C.F.R. § 2.206 process for the petition under consideration.
- Item 2 met the criteria established in MD 8.11 for acceptance into the 10 C.F.R. § 2.206 process for the petition under consideration.
- Item 3 did not meet the MD 8.11 criteria for further review under the 10 C.F.R. § 2.206 process, in that the request did not specifically address an enforcement-related action.
- Item 4 did not meet the MD 8.11 criteria for further review under the 10 C.F.R. § 2.206 process, in that the petition provided insufficient facts to support the request. However, the results of any investigation into the circumstances of the petition could result in enforcement actions beyond those specifically requested in items 1 and 2.

The NRC discussed the initial recommendation with the Petitioner during a telephone conversation on December 16, 2009. During this conversation, the Petitioner stated that he would not request another opportunity to address the PRB. In a letter dated January 15, 2010 (ADAMS Accession No. ML093410050), the NRC informed the Petitioner that the PRB had approved the petition request, in part, and that it was referring the issues in the petition to the Office of Nuclear Reactor Regulation for appropriate action.

The NRC issued a proposed Director's Decision on May 7, 2010 (ADAMS Accession No. ML100970310). A copy of the proposed director's decision was sent to the Petitioner and Xcel for comment. On June 4, 2010, the Petitioner commented on the proposed Director's Decision in a letter (ADAMS Accession No. ML101730368) addressed to the Director, Division of Operating Reactor Licensing. On June 4, 2010, Xcel informed the NRC Petition Manager that it had no comments on the proposed Director's Decision. This Director's Decision includes the comments and the NRC Staff's response.

C. Personnel Access Data System

During the December 16, 2009, telephone conversation, the Petitioner noted that item 3 was an important aspect of his request and clarified its intent. The Petitioner stated that information retained and on record that related to access denial at the Prairie Island Nuclear Generating Plant was inhibiting his access to other nuclear facilities. The Petitioner was concerned about what information pertaining to him was being shared within the nuclear industry. He was specifically concerned that the information resulting in the denial of his access authorization at Prairie Island Nuclear Generating Plant was being disseminated throughout the nuclear industry through the Personnel Access Data System (PADS). The Petitioner requested additional information regarding the PADS, including (1) what information it contains, (2) how it is used in the nuclear industry, and (3) the ability to access personal information entered in the system.

On January 7, 2003, the NRC issued an Order for Compensatory Measures Related to Access Authorization (ADAMS Accession No. ML030060360). The order required the nuclear industry to develop, implement, and maintain an industry database (e.g., PADS) accessible by NRC-licensed facilities, with the intent of sharing information, including the determination of whether an individual is denied access at any other NRC-licensed facility. The order stated that any person who has been denied access at a licensee facility based on NRC requirements (e.g., falsification of information, trustworthiness or reliability issues, issues related to fitness for duty) shall be placed in the industry information-sharing mechanism and flagged accordingly to advise other licensees of the individual's status.

Each licensee is required to review and evaluate these access decisions before granting a request for unescorted access. The order further states that unescorted access can only be granted under the following conditions if a person is in a denial status: (1) the denying licensee reviews the access decision and determines, after further review, that unescorted access authorization is appropriate, or (2) another licensee reviews the conditions under which the denying licensee made the denial decision and determines the individual is now trustworthy, reliable, and fit for duty, and that unescorted access would be appropriate at the current licensee site. Thus, each licensee must evaluate the denial status on a case-by-case basis and make a determination of trustworthiness and reliability.

PADS contains only demographic data information, such as name, date of birth, and social security number, as well as the current status of unescorted access and denial of access. A licensee must ensure that it has the individual's consent before entering information into the PADS database and allowing subsequent retrieval by other authorized operators. It is essential that each licensee ensure that its authorized operators observe this requirement before entering new data.

The PADS database contains no criminal history information, based on the

U.S. Department of Justice requirements on the dissemination of criminal history information of third-party entities. Although PADS indicates when a licensee has additional information that should be reviewed in making future access determinations, the database does not include such information. When additional information exists, the licensee's reviewing official must obtain and review the specific information to make a determination on unescorted access to the protected area. The licensee may only obtain such information from another licensee after the individual signs a newly executed consent. Since the additional information may or may not be negative, subsequent denial of access cannot be made based only on PADS data. Thus, the licensee must contact the previous facility regarding its denial of access. Then the current licensee must independently evaluate all the information.

An individual or member of the public does not have access to PADS. An individual requiring clarification or resolution of an access authorization concern must resolve the issue with the licensee where unescorted access was last held or otherwise denied.

III. DISCUSSION

A. Regulatory Evaluation

The regulations in 10 C.F.R. § 73.56(d)(5) state, in part: "Licensees, applicants, contractors and vendors shall ensure that the full credit history of any individual who is applying for unescorted access or unescorted access authorization is evaluated." A credit history check provides information to be used with other background investigation information in the reviewing official's evaluation of an individual's reliability and trustworthiness. Poor repayment data alone would typically not be disqualifying. However, when considered in context or with the other information, if there are indications of a potential lack of integrity such that trustworthiness and reliability cannot be assured, then the reviewing official should evaluate the individual's application as discussed below.

The industry standard for nuclear power plant access authorization program, as described in NEI 03-01, meets the intent and substance of the rule. NEI-03-01 defines potentially disqualifying information as any derogatory information (e.g., unfavorable information from an employer; developed or disclosed criminal history; credit history such as, but not limited to, collection accounts, bankruptcies, tax liens; judgments; unfavorable reference information; evidence of drug or alcohol abuse; discrepancies between information disclosed and developed) that must be evaluated against the adjudication criteria of a licensee or contractor/vendor.

The implementing guidance (section B.1.2.a (1 and 2)) for the NRC order of January 7, 2003, requires licensees to review derogatory information in

accordance with safeguards criteria to ensure that individuals are trustworthy and reliable before granting unescorted access.

B. Staff Evaluation

Staff from the NRC Office of Nuclear Security and Incident Response evaluated the Petitioner's requests based upon the governing regulations and a review of (1) the information provided by the Petitioner to the NRC, (2) the access authorization regulatory guidance and industry standards, (3) the interviews conducted by staff from the NRC Region III Office of Investigations, and (4) Xcel's access authorization implementing procedure.

On February 23, 2010, NRC Region III Office of Investigations staff interviewed Xcel personnel who were familiar with the access authorization program at the Prairie Island Nuclear Generating Plant. The Xcel staff included those directly involved in the site access authorization process related to the Petitioner. As discussed below, the NRC Staff reviewed the details derived from the interviews to better understand the specific circumstances involved in denying the Petitioner site access.

As recently as October 2009, NRC Region III inspectors conducted a security baseline inspection of Xcel's access authorization program. The inspection found that Xcel effectively implemented the NRC access authorization program requirements under 10 C.F.R. § 73.56, in addition to the applicable regulatory guidance that describes a method the Staff considers acceptable to meet the requirements of 10 C.F.R. § 73.56. The industry standard for a nuclear power plant access authorization program, as described in NEI 03-01, meets the intent and substance of the rule. The appendix to NRC Regulatory Guide 5.66, "Access Authorization Program for Nuclear Power Plants," issued June 1991, provides the standards, except for a Safeguards Information supplement to the standards that is protected against unauthorized disclosure and controlled in accordance with 10 C.F.R. § 73.21, "Protection of Safeguards Information: Performance Requirements."

The NRC Staff also reviewed Xcel's internal procedure, FP-S-AA-01, "Xcel Energy Nuclear Department Fleet Procedure Access Authorization Program." Section 5.11.2.1g identifies tax liens as derogatory information if there are no signs of repayment or actions taken to address the issue before the decision to grant unescorted access. The Petitioner's case was reviewed against FP-S-AA-01, section 5.11.4.4(b)(2), which requires evaluation of any derogatory information in accordance with Attachment 5 of the safeguards provisions, to determine if the lack of action by the Petitioner indicates a lack of trustworthiness and reliability warranting denial of access.

The Licensee evaluated the Petitioner's tax lien and status against Attachment 5, Item C.9, and the implementing guidance in sections B.1.2.a.2.viii and

B.1.3.b.1.ii, Clause 2, in the January 7, 2003 order and determined that they indicated a lack of trustworthiness and reliability warranting denial. Poor repayment data alone would typically not be disqualifying. However, when considered in context or with the other information, if there are indications of a potential lack of integrity such that trustworthiness and reliability cannot be assured, then the reviewing official should evaluate the individual's application against the safeguards supplement. Xcel applied this criterion to the Petitioner's case.

The Petitioner disclosed the tax lien to Xcel in the personal history questionnaire. However, for approximately 7 years (early 2001 to 2008), there was no evidence of the Petitioner repaying the debt to the Internal Revenue Service (IRS) or planning to do so. While the Petitioner provided a document indicating that he sought legal counsel to resolve the tax lien, he did nothing to execute it or establish a payment plan to resolve the matter because of, as he claimed, a lack of monetary funds.

This case was reviewed against Xcel procedure FP-S-AA-01, section 511.4.4(b)(2), requiring evaluation of any derogatory information in accordance with Attachment 5 of the safeguards provisions. The process determination indicated a lack of trustworthiness and reliability warranting denial, based on the Petitioner's failure to execute repayment of the debt. As previously discussed, poor repayment data alone would typically not be disqualifying. However, Xcel reviewed the Petitioner's application against the safeguards supplement in conjunction with other pertinent information and identified a potential lack of integrity, and it ultimately determined that trustworthiness or reliability could not be assured.

By letter dated June 4, 2010, the Petitioner commented on the proposed Director's Decision, describing the legal proceedings related to the aforementioned tax lien as well as the circumstances surrounding his inability to establish a settlement and/or repayment plan. The Petitioner stated that he filed a complaint against the IRS for violations of law. The Petitioner's complaint was subsequently dismissed, without prejudice, in February 2004. The Petitioner further claimed that since he did not receive subsequent notification from the IRS, he believed that the IRS realized it had violated the law and his due process rights and that no further action was warranted by the Petitioner pertaining to this issue.

The NRC Staff reviewed the Petitioner's comments and concluded that neither the NRC nor Xcel have an affirmative obligation to probe the Petitioner's claims against the IRS, either adjudicatory or otherwise. Once the Petitioner identified the unpaid tax lien on his personnel history questionnaire, Xcel was obligated to make a trustworthiness and reliability determination based on that information in accordance with NRC regulations and applicable guidance.

IV. CONCLUSION

The Petitioner claimed that Xcel was in violation of 10 C.F.R. § 73.56 in denying him access to the Prairie Island Nuclear Generating Plant using the AA/FFD Programs by basing the decision solely upon an existing tax lien, and failing to base the decision on a review and evaluation of all pertinent information. The Petitioner stated that Xcel failed to incorporate all three elements (i.e., background investigation, psychological assessment, and behavioral observation) of the unescorted access authorization program when making the decision to deny unescorted access.

The NRC Staff reviewed the Petitioner's request against the governing regulations and a review of (1) the information provided by the Petitioner to the NRC, (2) the access authorization regulatory guidance and industry standards, (3) the interviews conducted by Staff from the NRC Region III Office of Investigations, and (4) Xcel's access authorization implementing procedure. The NRC Staff recognizes that poor repayment data alone, as in the case of a tax lien, would typically not be disqualifying. Xcel also reviewed the Petitioner's application against the safeguards supplement in conjunction with other pertinent information. The Licensee's AA/FFD process identified a potential lack of integrity that ultimately determined that trustworthiness reliability could not be assured, thus warranting a denial based, in part, on a failure to execute repayment of the debt.

Based on the above, the Office of Nuclear Reactor Regulation has concluded that Xcel effectively implemented the AA/FFD Programs in accordance with established NRC regulations and NRC-endorsed standards in the case of the Petitioner. The decision to deny the Petitioner unescorted access to the Prairie Island Nuclear Generating Plant appears sound and justified. No further action is required.

As provided in 10 C.F.R. § 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

FOR THE NUCLEAR
REGULATORY COMMISSION

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 20th day of July 2010.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Eric J. Leeds, Director

In the Matter of **Docket No. 50-284**
(License No. R-110)

IDAHO STATE UNIVERSITY
(Idaho State University AGN-201) **July 30, 2010**

The Petitioner, Dr. Crawford, stated that during his tenure as the Reactor Supervisor at the Idaho State University research reactor from December 19, 1991, until March 12, 1993, he witnessed regulatory, criminal, and ethical violations associated with the operation of the NRC-licensed facility. Furthermore, Dr. Crawford contended that the NRC was grossly negligent in concealing violations in the Notice of Violation (NOV) (Inspection Report 50-284/93-01) (ADAMS Accession No. ML092600304) and that Idaho State University continues to operate its reactor in violation of regulatory requirements. The Petitioner provided a detailed historical chronology of events with regard to observed activity and alleged acts of misconduct involving Staff who worked during the said period of Dr. Crawford's tenure.

On September 15, 2009, the NRC Petition Review Board (PRB) convened to discuss the petition under consideration and determine whether it met the criteria for further review under the 10 C.F.R. § 2.206 process. The PRB comprised NRC technical and enforcement staff and legal counsel, and it was chaired by an NRC senior-level manager. The PRB determined that the petition under consideration met the criteria established in NRC Management Directive 8.11, "Review Process for 10 C.F.R. § 2.206 Petitions," and was accepted in part into the 10 C.F.R. § 2.206 process. Issues that were not accepted into the 2.206 petition process did not satisfy the criteria as specified in NRC Management Directive (MD) 8.11, "Review Process for 10 C.F.R. 2.206 Petitions."

During the week of February 23-24, 2010, a nonroutine inspection (Idaho State University–NRC Non-Routine Inspection Report No. 50-284/2010-201, ADAMS

Accession No. ML100321367) was conducted at the Idaho State University research reactor to review logs, records, and observe the performance of licensed activities, pertinent to the issues accepted for Dr. Crawford's 2.206 Petition. Copies of Inspection Report No. 50-284/2010-201 were provided to reactor facility staff at the Idaho State University and to the Petitioner. Additionally, the observations made during the inspection supplemented the bases for the Final Director's Decision.

The Final Director's Decision (ADAMS Accession No. ML101160483) was issued on July 30, 2010. The Petitioner raised potential safety concerns that occurred during his tenure as Supervisor of the Idaho State University Research Reactor. The Petitioner requested that the NRC take enforcement action against the Licensee for continuing to operate in violation of their regulatory requirements.

The NRC technical staff reviewed the results from the inspection team and other docketed information associated with the past and present operation at the Licensee's facility. The NRC Staff concluded that reactor operation at Idaho State University maintains awareness and implements practices that were consistent with public health and safety. Based on the inspection and review, there were no current violations and no other violations that occurred in the past that were not appropriately addressed.

Accordingly, NRC denied the Petitioner's request for enforcement action against Idaho State University's research reactor.

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

I. INTRODUCTION

By letter to the Executive Director for Operations for the U.S. Nuclear Regulatory Commission (NRC), dated June 26, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML092440721), Dr. Kevan Crawford, filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 C.F.R.) § 2.206, "Requests for action under this subpart." Additionally, Dr. Crawford requested further enforcement action against the Licensee during a transcribed conference call with the Petition Review Board (PRB) on September 1, 2009 (ADAMS Accession No. ML092650381), supplementing the June 26, 2009, petition.

Publicly available records will be accessible from the ADAMS 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 reference

staff in the NRC Public Document Room by telephone at 1-800-397-4209 or 301-415-4737, or by e-mail to PDR.Resource@nrc.gov.

A. Action Requested

The Petitioner requested that the NRC take the following enforcement action:

1. The reactor operating license should be suspended immediately. All continuing violations, including items that Dr. Crawford alleged were unresolved from the Notice of Violation (NOV) 93-1 as well as twenty violations that Dr. Crawford alleged to be concealed must be reconciled with the regulatory requirements immediately. The alleged violations correspond to regulatory, criminal, and ethical misconduct which Dr. Crawford contends had impacted public health and safety and the environment of Pocatello, Idaho.

2. The Licensee should be fined for all damages related to the violations and coverup of violations.

3. The Licensee should be required to carry a 50-year $50,000,000 bond to cover latent radiation injuries instead of covering these injuries with unreliable State budget allocations for contingency funds.

4. During the fall semester of 1993, Dr. Crawford alleges that students utilizing the reactor lab facilities were handling irradiated samples without permission. Furthermore he alleges that the samples were handled without anti-contamination clothing and no radiological surveys were conducted, although he states neither of which was required. Dr. Crawford contends said students proceeded to the local hospital to visit friends in the neonatal unit. Upon this basis, Dr. Crawford requests every potential exposure and contamination victim be identified through facility records, located, and informed of the potential risk to them and their families. The Medical Center in Pocatello, Idaho, should also be informed so that they may do the same. Those who were exposed should be informed of the entire range of expected symptoms and of their right to seek compensation from the Licensee.

5. The following should warrant immediate revocation of the operating license due to the inability of the Licensee to account for, with documentation, controlled byproduct nuclear materials that were:

    a. Released in clandestine, undocumented shipments before August 4, 1993;

b. Possessed by individuals not licensed to control the materials, and were not certified to handle the materials;

c. Without proper Title 49 *Code of Federal Regulations* (49 C.F.R.) Department of Transportation (DOT) certified containers;

d. Without proper labeling for transport on public roads; and

e. Concealed via fraudulent Annual Operating Reports in which the Licensee failed to address uncontrolled byproduct material distribution and facility modifications and which were never amended after NOV 93-1.

6. The Licensee must permanently revoke the Broad Form License.

7. The Licensee must publicly acknowledge that there was a loss of control of Special Nuclear Material (SNM).

8. The Licensee must publicly acknowledge persons that served as an accessory to concealing unlawful distribution of controlled substances, fraud (both Annual Operating Reports and National Whistleblower Center), loss of control of SNM, and child endangerment.

B. Petitioner's Bases for the Requested Action

The Petitioner, Dr. Crawford, stated that during his tenure as the Reactor Supervisor at the Idaho State University research reactor from December 19, 1991, until March 12, 1993, he witnessed regulatory, criminal, and ethical violations associated with the operation of the NRC-licensed facility. Furthermore, Dr. Crawford contends that the NRC was grossly negligent in concealing violations in the Notice of Violation (NOV) (Inspection Report 50-284/93-01) (ADAMS Accession No. ML092600304) and that Idaho State University continues to operate its reactor in violation of regulatory requirements. The Petitioner provided a detailed historical chronology of events through observed activity and alleged acts of misconduct involving staff who worked during the said period of Dr. Crawford's tenure.

C. Determination for NRC Review under 10 C.F.R. § 2.206

On September 15, 2009, the NRC Petition Review Board (PRB) convened to discuss the petition under consideration and determine whether it met the criteria for further review under the 10 C.F.R. § 2.206 process. The PRB was composed of NRC technical and enforcement staff and legal counsel, and was chaired by an NRC senior-level manager. The PRB determined that the petition

under consideration met the criteria established in NRC Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 Petitions," and was accepted in part into the section 2.206 process.

Issues that were not accepted into the 2.206 petition process did not satisfy the criteria as specified in NRC MD 8.11, "Review Process for 10 CFR 2.206 Petitions." In such instances: (1) the incoming correspondence does not ask for an enforcement-related action or fails to provide sufficient facts to support the petition, but simply alleges, without detail, wrongdoing, violations of NRC regulations, or existence of safety concerns and/or, (2) the Petitioner raises issues that have already been the subject of NRC Staff review and evaluation, either on that facility, other similar facilities, or on a generic basis, for which a resolution has been achieved, the issues have been resolved, and the resolution is applicable to the facility in question. Additionally, portions of the petition raised several concerns not within the jurisdiction of NRC.

The PRB's initial recommendation was to accept for review, pursuant to 10 C.F.R. § 2.206, the following concerns in Dr. Crawford's petition:

1. Failure to conduct 10 C.F.R. § 50.59 safety review of the modification of the Controlled Access Area by the addition of an undocumented roof access for siphon breaker experiment implemented prior to 1991. The June 26, 2009, petition states that the modification allowed random student access to the roof of the reactor room.

2. Release of controlled byproduct nuclear materials in containers not certified in accordance with 10 C.F.R. Part 71 for transport of such materials on public roads and not labeled with the required labeling.

3. Failure to require the reactor operator conducting the startup procedures to wear protective clothing during routine removal of the activated startup channel detector from the reactor core. In the petition Dr. Crawford states that this was cited as an Apparent Violation, but the NRC should not have dropped this item in the final NOV.

4. Routine unprotected handling of an unshielded neutron source (reactor startup source) by licensed operators and uncontrolled access by untrained and unlicensed facility visitors to this neutron source, violating the 10 C.F.R. Part 20 as low as reasonably achievable (ALARA) requirements.

On September 28, 2009, the Petitioner was contacted via telephone and was provided the initial recommendations of the PRB. Pursuant to NRC MD 8.11, Dr. Crawford was afforded the opportunity to comment on the recommendations and to provide any relevant additional explanation and support for the request in light of the PRB's recommendations. Through subsequent e-mail communication, Dr. Crawford declined the opportunity to respond to the PRB's recommendations

or to provide further information for support of the petition request (ADAMS Accession Nos. ML092720460 and ML092720824).

The PRB's final recommendation for the petition was documented in the acknowledgment letter dated November 19, 2009 (ADAMS Accession No. ML092800432).

On March 19, 2010, the NRC sent a copy of the proposed Director's Decision (ADAMS Accession No. 104917500) to Dr. Crawford and to staff at Idaho State University for comment. Neither the Petitioner nor the Licensee provided comment.

II. DISCUSSION

A. Background

During the week of February 23 -24, 2010, a nonroutine inspection (Idaho State University-NRC Non-Routine Inspection Report No. 50/284/2010-201, ADAMS Accession No. ML100321367) was conducted at the Idaho State University research reactor to review logs, records, and observe the performance of licensed activities, pertinent to the issues accepted for Dr. Crawford's 2.206 Petition. The following provides the background, observations and findings, and the conclusion from the nonroutine inspection:

1. Failure to Conduct 10 C.F.R. 50.59 Safety Review of the Modification of the Controlled Access Area by the Addition of an Undocumented Roof Access for Siphon Breaker Experiment Implemented Prior to 1991

a. Background

In his petition, Dr. Crawford states that there was a "failure to conduct a 10 CFR 50.59 safety review for the modification of the Controlled Access Area by the addition of an undocumented roof access for the siphon breaker experiment implemented prior to August 1991, and not covered in the SAR. Random students accessed the roof of the reactor room daily to retrieve objects thrown there. That is how the roof seal was broken and will continually be broken, and proof the roof area does not have a natural barrier to access the unmonitored doors to the reactor room." Additionally, Dr. Crawford submitted his justification for requiring the facility modification during the teleconference with the PRB, stating,

> Routine access to the facility roof by the general public must be physically prevented, requiring an architectural barrier. The roof must be replaced to comply with the physical security plan requirement for the Licensee to check each access at random

intervals during each eight-hour period. The roof egress must be removed to comply with the physical security plan, and rid the facility of an OSHA violation, to be replaced by a ground-level egress.

b. Observations

The inspectors reviewed numerous records available onsite, dating from 1975 through the present, and interviewed present and former Licensee facility employees. From these records and interviews the inspectors ascertained that the Siphon Breaker Experiment (SBE) was an experiment that did not involve, and was not connected to, the Licensee's research and test reactor. Because of the height of the piping involved in the SBE, the experiment was conducted inside the Reactor Room. Some of the piping extended out of the roof of the Reactor Room (through a temporary penetration in the equipment hatch cover plate) while the bottom portion of the SBE rested in the Gamma Irradiation pit. This provided sufficient vertical space for the experiment to be conducted but also required people working on the experiment to access the Reactor Room.

No section 50.59 review of the SBE was found among the records reviewed by the inspectors. However, upon reviewing the SBE as it was described, evidence does not support that a section 50.59 review was required, as the facility Safety Analysis Report (SAR) for the Idaho State AGN-201M Reactor did not describe the equipment access hatch in detail, aside from dimensions and material composition. A section 50.59 review by the Licensee would have been necessary if the modification would have changed structures, systems, and components as described in the SAR.

During the August 1989 time frame, there were concerns about the security of the Reactor Room (Room 20) because of various people needing access to the area. These concerns were brought to the attention of the Reactor Supervisor. After a review of the practices and security arrangements for operation of the SBE, a temporary procedure was implemented to restrict access to the Reactor Room and to ensure that the experimenters' activities were in compliance with the Physical Security Plan.

The inspectors also reviewed numerous records available onsite, dating from 1975 through the present, and interviewed present and former Licensee facility employees concerning the installation of the personnel roof access ladder and hatch. This was an issue Dr. Crawford identified during the transcribed conference call with the PRB on September 1, 2009 (ADAMS Accession No. ML092650381). It was noted by the inspectors that the ladder and roof hatch were installed to provide a secondary means of escape from the Reactor Room in case of emergency.

Through records review, it was noted that during the meeting of the Reactor Safety Committee (RSC) in 1989, the installation of the emergency escape ladder in either the Reactor Room or Reactor Laboratory (Lab) was discussed, as was the

installation of a fire alarm and smoke detector. The personnel roof access hatch was also addressed in Rev. 3 and Rev. 4 of the Physical Security Plan for the facility dated February 23, 1990, and January 27, 2003, respectively. No section 50.59 review of the roof access hatch was found among the records reviewed by the inspectors. Regarding the SBE, evidence does not support that a section 50.59 review was required since it was not a modification to existing structures and/or equipment, as described in the SAR.

The review of recent Licensee section 50.59 reviews demonstrated that the Licensee is aware of the section 50.59 process and that various operating and safety aspects of modifications to existing structures and/or equipment needed to be reviewed (and, if needed, approved by the RSC, or the NRC if applicable) prior to implementing the changes.

c. Conclusion

Although no section 50.59 reviews were found covering the Siphon Breaker Experiment or the personnel roof access ladder and hatch, evidence does not support that such a review was needed since they were not modifications to the existing structures and/or equipment, as described in the SAR. In addition, the inspectors became aware through record review that the Licensee acknowledged and addressed the security aspects of the SBE. Furthermore, the Licensee developed a procedure to restrict access to the Reactor Room to be in compliance with the Physical Security Plan during the time frame which the SBE was in use.

2. Release of Controlled Byproduct Nuclear Materials in Containers not Certified in Accordance with 10 C.F.R. Part 71 for Transport of Such Materials on Public Roads and not Labeled with the Required Labeling

a. Background

In Dr. Crawford's section 2.206 petition, he contends that circa 1992, the facility was involved with the unlawful distribution of byproduct material in, "undocumented, clandestine transactions, to unknown individuals of ethnic origins." Additionally, he states that the individuals were not licensed by the NRC or certified by the Idaho State University (ISU) Broad License to possess materials and were not transported in accordance with Title 49 of the C.F.R. (e.g., shipping containers, approved vehicles, shipping routes, etc.). Dr. Crawford acknowledges that the NRC cited Idaho State University for failing to document the transactions of controlled byproduct nuclear materials (NRC Inspection Report 50-284/93-01, ADAMS Accession No. ML092600304), but contends that if the material was

transferred via public road, then the certified container identification and surface contamination surveys should have been recorded.

b. Observations

The inspectors reviewed various records dating from 1975 through the present and interviewed present and former Licensee facility employees. From these records and interviews the inspectors determined that radioactive materials produced in the reactor were (and are) typically used in the Reactor Room or the adjacent Lab and then left in/returned to the Reactor Room for decay. On occasion radioactive material is transferred to other individuals or groups for use elsewhere. In the past, the NRC noted problems in this area as documented in Inspection Report No. 50-284/93-01, dated November 4, 1993. As a result, the Licensee took various actions to correct the problems and deficiencies. One action was to revise and improve the record-keeping system for tracking byproduct material. The record system and the forms used in tracking material were reviewed by the inspectors. The material had either been transferred to an authorized/licensed individual or company as required or it was held in the Reactor Room until it had decayed to background or near background activity levels. No violations were noted.

Another action the Licensee took as a result of the problems in 1993 was to revise the procedures for shipping radioactive materials from the ISU campus. In reviewing the current shipping procedures used at ISU, it was noted that radioactive material to be shipped from the reactor facility is required to be transferred to the campus Technical Safety Office (TSO). A person from that office, designated as the ISU Certified Shipper, is responsible for ensuring that the material is shipped in accordance with the rules specified by the DOT in 49 C.F.R. Parts 171 through 180. If assistance is needed, a certified shipper from the Idaho National Laboratory is called in for advice and consultation to ensure that all aspects of the regulations are met including (but not limited to): (1) completion of the appropriate shipping papers, (2) use and marking of properly certified containers, (3) attachment of the proper labeling, and (4) use of appropriate placards for the transport vehicle as needed.

The inspectors also conferred with NRC inspectors from the Region IV office concerning their review of the radioactive material shipping program at ISU. In 1993, inspectors from Region IV indicated that they had reviewed the ISU program for receiving, handling, and shipping byproduct and source material. Recent reviews noted no violations during the last three inspections.

A review of the available records indicated that no shipments of radioactive material from the reactor had been made in the past several years.

c. Conclusion

The NRC review did not find any inappropriate release of material in uncertified containers and not properly labeled. Regarding present operations, radioactive material to be shipped from the reactor facility is required to be transferred to the TSO and that office is responsible for completing the transfer or shipment. Shipments of radioactive material are verified to be in compliance with the regulations and, if needed, with the help of a consultant. No shipments of radioactive material from or produced in the reactor have been made in the past several years.

3. Failure to Require the Reactor Operator Conducting the Startup Procedures to Wear Protective Clothing During Routine Removal of the Activated Startup Channel Detector from the Reactor Core

The June 26, 2009, letter states that this was cited as an Apparent Violation, but the NRC should not have dropped this item in the final NOV (NRC Inspection Report 50-284/93-01).

a. Background

NRC Inspection Report 50-284/93-01 (ADAMS Accession No. ML100490079) addressed the Apparent Violation (50-284/9301-07), where inspectors noted that a radiation detector was used in association with Experiment 21, "Auto Reactivity Control System Operation" and was placed in the thermal column of the reactor, but not surveyed when removed. The purpose of the survey would have been to determine if activation products presented a radiological hazard to persons handling the detector. At that time, 10 C.F.R. § 20.201(b), "Surveys" (now, 10 C.F.R. Part 20, Subpart F — Surveys and Monitoring) required that each Licensee evaluate the extent of radiation hazards that may be present.

The 93-1 NOV contains Enclosure No. 4, "Idaho State University Presentation" which was conducted by the ISU reactor facility staff during the NRC-ISU Enforcement Conference held on October 8, 1993. Based on the supplemental information provided during the Enforcement Conference, no citation was issued for the apparent violation.

In Dr. Crawford's section 2.206 petition, he contends that the NRC should not have dropped this item from the 93-1 NOV because "the Agency overlooked contamination concerns which would have contaminated control console logbooks, and violated 10 CFR 20 ALARA requirements."

b. Observations

NRC Inspection Report 50-284/93-01 (ADAMS Accession No. ML100490079) addressed the Apparent Violation (50-284/9301-07), where the inspectors noted that a radiation detector was used in association with Experimental Procedure 21 (EP-21), "Auto Reactivity Control System Operation" and was placed in the thermal column of the reactor, but not surveyed when removed. The survey would have determined if activation products presented a radiological hazard to persons handling the detector. At the time, 10 C.F.R. § 20.201(b), "Surveys" was cited as the basis for an apparent violation for the Licensee's failure to make reasonable surveys under the circumstances to evaluate the extent of radiation hazards that may be present.

The 93-1 NOV contains Enclosure No. 4, "Idaho State University Presentation" which was conducted by the ISU reactor facility staff during the NRC-ISU Enforcement Conference held on October 8, 1993, which discussed the Licensee's process for EP-21. The supplemental information showed that upon EP-21's completion the ion chamber was left in the thermal column until another experiment requires the thermal column to be altered, which at that time the surveys would be taken to determine radiation levels which would be recorded in the operations log. Based on the supplemental information provided during the Enforcement Conference, no citation was issued for the apparent violation as surveys of the ion chamber were conducted at the time of thermal column alteration.

The inspectors interviewed facility staff and determined that EP-21 has not been employed since 1995, and equipment is presently not in service at the facility. The inspectors followed up on the current protocol with regard to handling of the startup channel detector (Channel No. 1). By verification of the procedure and through interviews with facility staff, it was determined that when reactor power reached the target threshold (as stated in Operational Procedure (OP)-1), an operator would depress an automated raise switch which would move the detector from an area of high flux to an area of lower flux within the water tank. The Channel No.1 detector is not removed from the water tank where it would be reasonable to conduct radiological surveys. The Channel No. 1 detector is lowered back into its fixed position by extending a solenoid arm external to the water tank, without direct contact of potentially contaminated equipment.

The inspectors reviewed contamination and radiation survey records as required by TS § 4.4c, Radiation Safety manual (RSM) §§ 6.3 and 7.2, and Radiation Safety Procedures (e.g., Experimental Procedure-8). The inspectors reviewed logs of reactor operating and shutdown conditions, interviewed TSO staff, and performed an independent radiation survey and determined that readings were consistent and comparable to those with the Licensee.

c. Conclusion

Supporting information from the 1993 NRC-ISU Enforcement Conference provided is consistent with the 10 C.F.R. Part 20 requirements for conducting reasonable surveys under the circumstances to evaluate the extent of radiation hazards that may be present. Currently, the Licensee does not employ EP-21 and the equipment is not in service at the facility. The present handling of the startup channel detector is performed in accordance with a procedure which does not require the use of protective clothing. A review of contamination and radiation survey logs was performed without issue.

4. Routine Unprotected Handling of an Unshielded Neutron Source (Reactor startup Source) by Licensed Operators and Uncontrolled Access by Untrained and Unlicensed Facility Visitors to This Neutron Source, Violating 10 C.F.R. Part 20 ALARA Requirements

a. Discussion

In Dr. Crawford's section 2.206 petition he stated that during reactor operation, radiation records filed at the console should have been higher than that annotated on operational checklists. Additionally, Dr. Crawford contends that mixed radiation (e.g., neutrons, alphas, etc.) streaming from the core access hole could "strike visitors of average height between the throat and eyes" if they were positioned behind the console operator. During reactor startup, Dr. Crawford states that he witnessed the neutron source handled routinely without protective clothing and placed on the open floor, which he contends violated 10 C.F.R. Part 20 ALARA requirements.

b. Observations

During the inspection period the reactor was inoperable due to maintenance of control systems. The inspectors reviewed contamination and radiation survey records as required by TS § 4.4c, Radiation Safety Manual §§ 6.3 and 7.2, and Radiation Safety Procedures (e.g., EP-8). Additionally, the inspectors reviewed logs of reactor operating and shutdown conditions, interviewed TSO staff, and performed an independent radiation survey and determined that readings were consistent and comparable to those with the Licensee. During the last Reactor Full Power Survey, conducted on July 21, 2009, by ISU TSO staff, the inspectors determined, through record review, that the radiation level at the reactor console during 4-W reactor power was 0.4 mrem/hr. Streaming radiation from the 1-inch-diameter access hole or "glory hole" is shielded by 12-inch-thick, high-density baryte concrete blocks which reduce the radiation levels. The level of radiation

on the unshielded side of the glory hole, streaming away from reactor console, was 70 mrem/hr at a distance of 1 m.

The inspectors reviewed records for leak checks of the 10 mCi Ra-Be source which is used during reactor startup. The records indicated that recorded levels during analyses were below the threshold for minimum detectable activity of the liquid scintillation counter.

The inspectors interviewed facility staff and reviewed the reactor startup procedure, OP-1. The procedure provides guidance for the operator to insert the Ra-Be startup source into the glory hole, Thermal Column, or a beam port as needed for startup, however the procedure does not explicitly provide a step for startup source removal and storage. Reactor Operators are trained to remove the startup source at the point where the nominal rod height has been established and power has stabilized. The startup source is removed by hand and is stored in a lead-shielded storage receptacle, known as a "pig" for subsequent use.

The procedure does not explicitly state a requirement for protective clothing as the startup source does not directly come in contact with the operator during handling; it is currently threaded onto the end of a 6-foot aluminum rod which facilitates placement into the reactor.

c. Conclusion

The NRC review did not find unprotected handling of an unshielded neutron source and uncontrolled access to the source. No violations of 10 C.F.R. Part 20 were identified. Radiation surveys performed by TSO staff during reactor operations indicate consistent dose rates on the order of 0.4 mrem/hr at the reactor console. Contamination surveys, involving the leak check for the Ra-Be startup source indicate levels below the threshold for minimum detectable activity of the liquid scintillation counter. Handling of the Ra-Be startup source is conducted in accordance with the approved procedure.

III. CONCLUSION

The Petitioner raised potential safety concerns that occurred during his tenure as Supervisor of the Idaho State University Research Reactor. The Petitioner requested that the NRC take enforcement action against the Licensee for continuing to operate in violation of their regulatory requirements.

The NRC technical staff reviewed the results from the inspection team and other docketed information associated with the past and present operation at the Licensee's facility. The NRC Staff therefore concludes that reactor operation at Idaho State University maintains awareness and implements practices that are consistent with public health and safety. Based on the inspection and review,

there are no current violations and no other violations that occurred in the past that were not appropriately addressed.

Based on the above, the Office of Nuclear Reactor Regulation denies your request for enforcement action against Idaho State University AGN-201M Reactor. No further action is required.

As provided in 10 C.F.R. § 2.206(c), the Staff will file a copy of this Director's Decision with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

FOR THE NUCLEAR
REGULATORY COMMISSION

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 30th day of July 2010.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of **Docket No. 40-9083**

U.S. ARMY INSTALLATION COMMAND
(Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii)

August 12, 2010

STANDING TO INTERVENE

In a materials licensing case, a petitioner must show more than that he lives or works within a certain distance of the site where materials will be located — he must show a plausible mechanism through which those materials could harm him. *See USEC Inc.* (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 311 (2005).

STANDING TO INTERVENE

In cases not involving nuclear power reactors, whether a petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source. *American Centrifuge Plant,* CLI-05-11, 61 NRC at 311. *See also Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116 (1995).

STANDING TO INTERVENE

NRC boards have established the "proximity-plus" test to establish standing in materials cases, where the petitioner must show: (1) that the proposed licensing action involves a "significant source" of radiation, which has (2) an "obvious potential for offsite consequences." *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994). *See also U.S. Army* (Jefferson Proving Ground Site), LBP-00-9, 51 NRC 159, 160-61 (2000) (standing found for organization representing three members living "in close proximity" to decommissioning site, who expressed concern that DU materials could affect a waterway abutting the property of two members).

STANDING TO INTERVENE: *PRO SE* LITIGANTS

As a rule, *pro se* petitioners are held to less rigid pleading standards, so that parties with a clear — but imperfectly stated — interest in the proceeding are not excluded. *Public Service Electric and Gas Co.* (Salem Nuclear Generating Station, Units 1 and 2), ALAB-136, 6 AEC 487 (1973); *International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-01-8, 53 NRC 204, 207-08 (2001); *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 581 (2006).

STANDING TO INTERVENE: PLEADINGS

Unsupported arguments that posited a mechanism for dispersal of radioactive material were insufficient to demonstrate the potential for offsite consequences where the licensee provided evidence that the posited scenario would not occur. Petitioner's argument that high-explosive munitions could fall onto DU, pulverizing and igniting the DU and generating aerosols that might travel through the air, providing an inhalation pathway for offsite exposure was not supported and was contradicted by the Army's statement that it does not employ high-impact explosives in the area where DU is present. Army regulations prohibit firing high-explosive munitions into areas containing DU. Petitioners' claims were "bare conjecture," and insufficient to support standing.

STANDING TO INTERVENE: PLEADINGS

The Board did not err in declining to find standing on the basis of unsupported assertions. The Board did not err in refusing to assume that the license applicant will stop following applicable Department of Defense guidance and disregard its representation to the Board that high-explosive munitions will not be used in the DU areas at Pohakuloa or Schofield. The Commission need not assume that the

license applicant will act contrary to applicable law, guidance, or the strictures of its license in the future. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235 ("in the absence of evidence to the contrary, the NRC does not presume that a licensee will violate agency regulations wherever the opportunity arises").

MEMORANDUM AND ORDER

Isaac D. Harp has appealed the Atomic Safety and Licensing Board's order denying his request for a hearing with respect to the U.S. Army's application for a license to possess depleted uranium (DU) at the Schofield Barracks (Schofield) on the island of Oahu, and at the Pohakuloa Training Area on the island of Hawaii.[1] For the reasons set forth below, we affirm the Board's ruling.

I. BACKGROUND

The U.S. Army is seeking a possession-only license for fragments of DU that originated from M101 "spotting rounds" that were used for training purposes on firing ranges at Schofield and Pohakuloa during the 1960s, in conjunction with the Davy Crockett nuclear weapon system. As the Board summarized: "The spotting rounds contained DU because its heavy weight enabled the rounds to imitate the trajectory of nonnuclear practice projectiles. The spotting rounds held a small explosive charge that detonated on impact, allowing the weapon system operator to target the weapon properly before firing the practice projectiles."[2] Use of the "spotting rounds" was discontinued in 1968. The DU fragments remained on the firing ranges, undetected, until the Army discovered the fragments at Schofield and Pohakuloa in 2005 and 2008, respectively.[3] The Army's records are insufficient to determine the exact number of spotting rounds fired at either range.[4] As such, the Army seeks authority to possess and manage DU at Schofield and Pohakuloa, in order to perform radiological surveys to fully characterize the nature and extent of contamination, and, as appropriate, to obtain information necessary to support development of decommissioning plans.[5]

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[1] LBP-10-4, 71 NRC 216 (2010).

[2] *Id.* at 220.

[3] *Id.*

[4] *Id.* at 221.

[5] *See* U.S. Army Installation Command, Application for Materials License, at 2 (License Application) (Nov. 6, 2008) (ADAMS Accession No. ML090070095).

Four individual *pro se* petitioners requested a hearing on the license application.[6] The Board rejected all four requests because each petitioner failed to demonstrate standing. While the Board examined both standing and proposed contentions of one petitioner — Ms. Leonardi — who, in the Board's view, presented the strongest claim of standing, it did not examine the contentions proposed by the three remaining petitioners, whose standing claims the Board found to be more attenuated.[7] Mr. Harp thereafter timely filed the instant appeal.[8]

II. DISCUSSION

Mr. Harp's appeal lies under the provisions of 10 C.F.R. § 2.311(c), which provides that an order denying a petition to intervene and/or request for hearing may be appealed to the Commission on the question of whether the petition and/or request should have been granted. The Staff and the Army oppose the appeal.[9]

A. Requirements for Standing

The Commission generally defers to the Board's rulings on standing in the absence of clear error or an abuse of discretion.[10] In cases not involving nuclear power reactors, whether a petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account the petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source.[11] In a materials licensing case such as this one, a petitioner must show more than that he lives or works within a certain distance of

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[6] These individuals were Cory Harden, Luwella K. Leonardi, Jim Albertini, and Mr. Harp. *See generally* LBP-10-4, 71 NRC at 230-43.

[7] LBP-10-4, 71 NRC at 227, 228-38. Ms. Leonardi lives much closer to Schofield Barracks — 2 miles — than the other petitioners live to Pohakuloa. The Board found none of Ms. Leonardi's contentions admissible under our rules. *Id.* at 241-43.

[8] Supporting Briefing of Petition Isaac Harp Appealing the [D]ecision by the Atomic Energy Safety and Licensing Board Memorandum and Order (Denying Requests for Hearing) (LBP-10-04) US Army Installation Command (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), Docket No. 40-9083, served February 24, 2010 (Mar. 4, 2010) (Harp Appeal).

[9] NRC Staff's Response to Issac Harp's Petition for Review of LBP-10-04 (Mar. 11, 2010); US Army Installation Command's Brief in Opposition to the Appeal of Isaac D. Harp from ASLBP Memorandum and Order Denying Request for Hearing (Mar. 12, 2010).

[10] *See, e.g., PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138 (2010); *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-09-8, 69 NRC 317, 324 (2009).

[11] *USEC Inc.* (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 311 (2005). *See also Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116 (1995).

the site where materials will be located — he must show a plausible mechanism through which those materials could harm him.[12] Our boards have established the "proximity-plus" test to establish standing in materials cases, where the petitioner must show: (1) that the proposed licensing action involves a "significant source" of radiation, which has (2) an "obvious potential for offsite consequences."[13] If a petitioner cannot establish the elements of proximity-based standing, then he must establish standing according to traditional standing principles.[14]

Further, although a Board should afford greater latitude to a pleading submitted by a *pro se* petitioner,[15] that petitioner ultimately bears the burden to provide facts sufficient to show standing.[16]

Here, the Board considered all of these factors as they pertain to Mr. Harp. Therefore, we are reluctant to overturn its well-considered ruling. As discussed below, Mr. Harp's appeal contains no indication that the Board erred in making its standing determination.

B. The Board Did Not Err in Finding That Mr. Harp Had Not Shown Standing

1. Basis of the Board's Ruling

At the outset, the Board recognized that because Mr. Harp is a *pro se* petitioner, it would afford him greater latitude, and construe the petition in his favor.[17] Nonetheless, the Board found that Mr. Harp had not established standing because he failed to show a plausible means through which he could be harmed by the possession-only license that the Army is seeking.[18]

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[12] *See American Centrifuge Plant,* CLI-05-11, 61 NRC at 311.

[13] *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994). *See also U.S. Army* (Jefferson Proving Ground Site), LBP-00-9, 51 NRC 159, 160-61 (2000) (standing found for organization representing three members living "in close proximity" to decommissioning site, who expressed concern that DU materials could affect a waterway abutting the property of two members).

[14] *See Exelon Generation Co., LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 581 (2005).

[15] *See Crow Butte Resources, Inc.* (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 278 (2008), *aff'd,* CLI-09-12, 69 NRC 535 (2009); *Cf. Shieldalloy Metallurgical Corp.* (Cambridge, Ohio Facility), CLI-99-12, 49 NRC 347, 354 (1999) (petitioners represented by counsel held to higher standard of specificity in pleading).

[16] *Bell Bend,* CLI-10-7, 71 NRC at 139.

[17] LBP-10-4, 71 NRC at 227.

[18] *Id.* at 237-38.

Mr. Harp's hearing request consisted of two e-mails, which the Board treated as a single petition. His request did not address standing.[19] Rather, he argued that DU has been identified as a "probable cause of various cancers and other mysterious illnesses that many military veterans suffer from," that disturbing the DU with continued munitions operations would put Hawaiians in jeopardy, and that elevated rates of cancer occur on those Hawaiian islands where Pohakuloa, Schofield, and another U.S. military range are located.[20]

The Board also considered additional information relating to standing that Mr. Harp provided at the prehearing conference.[21] At oral argument, Mr. Harp stated that he resides about 19 miles from the Pohakuloa Training Area,[22] and expressed concerns that he could be exposed to DU by air and through groundwater contamination.[23] He further argued that the porous and fractured geology of Hawaii would allow the DU to enter the groundwater.[24] Finally, Mr. Harp described various documents which he claimed supported his standing claim; these documents were not submitted to the Board.

The Board found that Mr. Harp had failed to demonstrate standing using either traditional standing principles or the "proximity plus" principles particular to NRC proceedings.[25] As an initial matter, the Board found that Mr. Harp, Ms. Harden, and Mr. Albertini were all similarly situated with respect to their standing claims, in that they all lived at least 19 miles away from the Pohakuloa site.[26]

The Board found that none of these three petitioners had shown that Pohakuloa presented a significant source of radiation with an obvious potential for offsite consequences.[27] In particular, the Board found that the Army's license application showed that the amount of DU scattered on the firing range was not a "significant source of radioactivity."[28] The Board cited portions of the application that showed that even conservative estimates of the number of spotting rounds fired at the Pohakuloa range would not result in concentrations of DU exceeding

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[19] *See* E-mails from Isaac D. Harp to Emile Julian, Army Request for a Depleted Uranium Possession-Only Permit (Oct. 26, 2009 and Oct. 28, 2009) (Harp Petition). Mr. Harp also stated that he joined Ms. Harden's petition to intervene.

[20] *Id.* These general arguments constituted the entirety of Mr. Harp's hearing request; he filed no express "contentions."

[21] *See* Tr. at 35-39, 76-92.

[22] Tr. at 77.

[23] Tr. at 79-80.

[24] Tr. at 80, 83.

[25] LBP-10-4, 71 NRC at 237-38.

[26] *Id.* at 236, 237.

[27] *Id.* at 231-34, 236, 237.

[28] *Id.* at 231.

decommissioning screening values for U-234, U-235, and U-238.[29] Finally, the Board found that there was no obvious potential for offsite consequences from the possession-only license because there was no apparent means for the DU to spread beyond its current location.[30]

In addition, the Board considered Mr. Harp's claims under traditional standing requirements, and found that he failed to demonstrate a plausible mechanism for DU to migrate offsite to affect him.[31] The Board observed that Mr. Harp had offered no support, for example, of his claim that the Army is disturbing the DU with ongoing munitions operations. The Board pointed out that Army regulations prohibit the use of high explosive munitions in areas containing DU fragments.[32] The Board found Mr. Harp's claims that there are high cancer rates in Hawaii, and his general assertion that the DU constitutes a "never-ending threat" to Hawaiians, did not show a plausible connection to the DU at the Pohakuloa Training Area.[33]

Mr. Harp's appeal, for the most part, simply reiterates the arguments in his petition and at oral argument, which he claimed that the Board "ignored" in reaching its decision.[34] The appeal also claims that the Board erroneously made various improper assumptions in reaching its decision.[35] None of these claims, as discussed below, shows that the Board erred in its determination that Mr. Harp lacked standing.

2. Claims of Error

a. Application of "Relaxed Pleading Standards"

As an initial matter, Mr. Harp claims that the Board did not apply relaxed pleading standards to himself (or to the other *pro se* petitioners in this case). Mr. Harp complains that the Board "relied on technicalities raised by the Staff

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[29] *Id.* Specifically, the Board pointed to portions of the license application which stated that even conservatively estimating the number of spotting rounds present on the Pohakuloa range at 2932 rounds, the concentration of radioactivity is "'significantly lower than [decommissioning] screening values for uranium' . . . specified in Volume 2, Appendix H, NUREG-1757 [Consolidated Decommissioning Guidance: Decommissioning Process for Materials Licensees].'" *Id.* 232 n.17 (citing License Application at 9, 10).

[30] *Id.* at 232-34.

[31] *Id.* at 237-38.

[32] LBP-10-4, 71 NRC at 233, 238 (citing Department of Defense, Directive 4715.11, "Environmental and Explosives Safety Management on Operational Ranges Within the United States," § 5.4.9 (May 10, 2004) (Department of Defense Directive 4715.11) (available at http://www.dtic.mil/whs/directives/corres/pdf/471511p.pdf (last accessed June 27, 2010)).

[33] *Id.* at 237.

[34] Harp Appeal at unnumbered pages 1-4.

[35] *Id.* at unnumbered pages 6-7.

in regards to *pro se* petitioners' inability to meet strict NRC guidelines on establishing standing."[36] As a rule, *pro se* petitioners are held to less rigid pleading standards, so that parties with a clear — but imperfectly stated — interest in the proceeding are not excluded.[37] But contrary to Mr. Harp's claim, the record reflects that the Board gave generous consideration to all of his claims. Further, the Board relaxed the NRC's filing requirements, permitting consideration of Mr. Harp's request in the first instance.[38] But the Board cannot wholly disregard the substantive requirements for standing and contention admissibility.[39] We find no Board error on this point.

b. Treatment of Mr. Harp's "Supporting Information" Related to Standing

Mr. Harp challenges the Board's finding that he offered no support for his assertion that DU could migrate from the Pohakuloa Training Area and harm him. Mr. Harp points out that during oral argument he cited several documents which, he argues, support his claim of potential harm.[40] Mr. Harp's appeal describes the six documents, but, as noted above, none of them appears to have been submitted to the Board.[41] In our view, the Board did not err to the extent that it did not

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[36] *Id.* at unnumbered page 6.

[37] *Public Service Electric and Gas Co.* (Salem Nuclear Generating Station, Units 1 and 2), ALAB-136, 6 AEC 487 (1973); *International Uranium (USA) Corp.* (White Mesa Uranium Mill), LBP-01-8, 53 NRC 204, 207-08 (2001); *Entergy Nuclear Vermont Yankee* (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 581 (2006). *Cf. Shieldalloy,* CLI-99-12, 49 NRC at 354 (petitioners represented by counsel are generally held to higher standards than *pro se* litigants).

[38] LBP-10-4, 71 NRC 225. The Board exempted Mr. Harp and the other petitioners from the e-filing requirements "for good cause shown." *Id.* at 227 n.13.

[39] *See, e.g., AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009) ("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.") (footnote omitted). *Cf. Georgia Tech,* CLI-95-12, 42 NRC at 115 (citing *Kelley v. Selin,* 42 F.3d 1501, 1508 (6th Cir. 1995)). In *Kelley,* the court observed, "[i]n order to determine whether the petitioners have standing, we 'accept as true all material allegations of the complaint, and . . . construe the complaint in favor of the complaining party.'" 42 F.3d at 1507-08 (quoting *Gladstone Realtors v. Village of Bellwood,* 441 U.S. 91, 109 (1979)).

[40] *See* Harp Appeal at unnumbered page 2, Tr. at 78-82.

[41] *Id.* at unnumbered page 2. These documents or statements are: (1) an article which, according to Mr. Harp, states that in 1979, air filters located 26 miles from a facility manufacturing DU penetrators were found to contain trace amounts of DU; (2) an article from an electronic newsletter claiming that 11,000 Gulf War veterans have died from illness caused by uranium munitions; (3) a paper claiming that DU can leach into soil (W. Schimmack, U. Gerstmann, U. Oeh, W. Schultz, P. Schrammel, *Leaching of Depleted Uranium in Soil as Determined by Column Experiments,* 44 Radiat. Env't Biophys. 183-91 (2005)); (4) Mr. Harp's statement that the Hawaii Department of Health found

(Continued)

consider references that were not provided to it with specificity, or in a timely fashion.[42] In any event, however, Mr. Harp's references do not appear to provide any support for his argument that DU may migrate off of the Pohakuloa site and adversely affect him.[43] We find that the Board did not err in its treatment of Mr. Harp's supporting references.

c. Use of High-Explosive Munitions

Before the Board, Ms. Harden, in whose petition Mr. Harp joined, argued that high-explosive munitions may be falling onto DU, and that this action might pulverize and ignite the DU, generating aerosols that might travel through the air, providing an inhalation pathway for offsite exposure.[44] The Board concluded that these assertions were unsupported, particularly in view of the Army's statement that it adheres to Directive 4715.11, which sets restrictions for firing high-explosive munitions into areas containing DU. Without more, the Board found these assertions to be "bare conjecture," and insufficient to support standing.[45]

Mr. Harp disagrees with the Board's finding that the Army will not use high-explosive munitions on the site, because, he argues, the Army has no "credibility," based on its "past activities in Hawaii."[46] In addition, Mr. Harp argues that the

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trichloroethylene in drinking water wells supplying Schofield Barracks; (5) Mr. Harp's statement that the Environmental Protection Agency shut down cesspools to protect drinking water at Pohakuloa; and, (6) a site status summary regarding the Jefferson Proving Ground site in Rock Island, Indiana, from the NRC website, stating that DU has contaminated the soil at the site and that groundwater will be monitored biannually (http://www.nrc.gov/info-finder/decommissioning/complex/jefferson-proving-ground-facility.html) (last visited June 27, 2010).

[42] *See generally Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996) (for factual disputes, a petitioner "must present sufficient information to show a genuine dispute").

[43] It appears that, notwithstanding the Board's directive that participants were not permitted to introduce new supporting documentation at oral argument, it considered at least some of the material referenced by Mr. Harp, although, in our view, it was not required to do so. *See generally* Memorandum and Order (Setting Oral Argument) (Jan. 7, 2010) (unpublished), at 2-3. For example, the Board pointed out that Mr. Harp did not provide factual support for his assertion that DU munitions are the "probable cause" of illness suffered by military veterans. LBP-10-4, 71 NRC at 237-38.

[44] LBP-10-4, 71 NRC 233 (citing Tr. at 11).

[45] The Board recommended that the Staff consider embodying the representation regarding the use of high-explosive munitions in a license condition. *See* LBP-10-4, 71 NRC at 234 n.20. But even were the Staff to follow this suggestion, Mr. Harp could not base standing or a contention on the possibility that the licensee will violate the terms of its license. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235 (2001); *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-18, 54 NRC 27, 30 (2001).

[46] Harp Appeal at unnumbered page 3.

Army may have used high-explosive munitions in the DU area prior to the discovery of DU there.[47]

Mr. Harp's arguments on appeal are unavailing. His concerns regarding the use of high-explosive munitions are without factual support, and we find that the Board did not err in declining to find standing on the basis of unsupported assertions. Fundamentally, Mr. Harp would have the Board find that the Army will, in the future, stop following applicable Department of Defense guidance, and disregard its representation to the Board that high-explosive munitions are not, and will not be, used in the DU areas at Pohakuloa or Schofield. We decline to assume that the Army will act contrary to applicable law, guidance, or the strictures of its license in the future.[48]

d. General Claims Regarding Cancer Rates in Hawaii

On appeal, Mr. Harp reiterates his generalized claims that Hawaii has a high cancer rate, and that the DU constitutes a "never-ending threat" to the health of Hawaiian citizens, but he does not address the Board's findings relating to this claim. We agree with the Board that these claims are vague and insufficiently supported, and do not tend to establish any connection with the proposed license or potential harm to Mr. Harp.[49]

e. Mr. Harp's Additional Statements

To conclude his appeal, Mr. Harp makes several "additional statements" that we need mention only briefly here.

Mr. Harp claims that the Board erred in relying on a report provided by an environmental consultant, Peter Strauss, to Ms. Harden, who submitted it as part

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[47] *Id.*

[48] *See PFS,* CLI-01-9, 53 NRC at 235 ("in the absence of evidence to the contrary, the NRC does not presume that a licensee will violate agency regulations wherever the opportunity arises"). *Cf. 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 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).

[49] *See U.S. Enrichment Corp.* (Paducah, Kentucky, and Piketon, Ohio), CLI-96-12, 44 NRC 231, 242 (1996) (finding, in the context of a challenge to a Director's Decision, that petitioner failed to provide "a reasonable basis" for assertions that increased cancer rates were associated with gaseous diffusion plant operations); *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 363-64 (2009) (reversing Board's admission of late-filed contention because petitioners failed to support their "fundamental premise" that applicant's "licensed activities have exposed petitioners and others to arsenic").

of her hearing request.[50] The hearing request did not explain how that report would support either Ms. Harden's claim of standing or contentions.[51] And, as the Board pointed out, the Strauss Report apparently contradicts her claim that the DU at Pohakuloa Training Area has the potential for offsite consequences.[52] Mr. Harp, however, argues that the Board "relied" on the Strauss Report in error because Mr. Strauss does not qualify as an expert on the radiological or chemical effects of DU.

This argument does not suffice to demonstrate Board error. Although the Board cited the Strauss Report several times in its discussion,[53] it did not opine on Mr. Strauss' status as an expert, but rather concluded that the contents of the report did not support the intervention petition. We find no Board error in that determination.

Mr. Harp noted that, during the prehearing conference, the Board posed questions as to whether the Army would update its application.[54] Mr. Harp argues that, if the application is going to be, or has been, updated, then the NRC must publish a notice in the *Federal Register* and solicit public comments on the amendments.[55] We decline to direct the Staff to take such action. Should Mr. Harp wish to challenge any future amendments to the Army's application that present genuinely new issues, he may file a fresh intervention petition, consistent with our rules for untimely petitions in 10 C.F.R. § 2.309(c).[56]

Finally, Mr. Harp requests that the NRC initiate enforcement action against the Army for purportedly possessing the DU munitions after its license to use them expired in 1964.[57] The Staff represents that it has forwarded Mr. Harp's request to the appropriate office for consideration, and it appears that the request is under

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[50] *See* Cory Harden, Request for Exemption From Electronic Filing and Request for Extension of Time to File a Request for Hearing and Petition for Intervention (Oct. 9, 2009) (Harden Petition), Attachment 5 (Memorandum from Peter Strauss to Cory Harden, "Independent Review of Pohakuloa Training Area (PTA): Depleted Uranium from the Davey [sic] Crockett Weapon System" (Aug. 1, 2008) (Strauss Report)). The report provides, among other things, Mr. Strauss' general views about potential health threats from DU at Pohakuloa.

[51] Ms. Harden cited the report only to show that Strauss estimated that there were up to 2000 rounds fired in Hawaii. *See* Harden Petition at 3.

[52] *See, e.g.,* LBP-10-4, 71 NRC at 232 (citing Strauss Report at 6: "geochemistry of the site makes it unlikely that DU is leaching from the surface to the groundwater;" and "[w]ind-carried particles would not likely carry very far because of the weight of DU").

[53] *See id.* at 231, 232, 234-35, 236, 239-40.

[54] Tr. at 113.

[55] Harp Appeal at unnumbered page 6. Mr. Harp further requests that, if amendments are filed, the Board be directed to stay its order terminating the proceeding.

[56] In addition to satisfying our requirements for a late petition, Mr. Harp would be required to demonstrate standing and submit at least one admissible contention, pursuant to 10 C.F.R. §§ 2.309(d) and 2.309(f)(1).

[57] *See generally* 10 C.F.R. § 2.206.

active consideration by the Staff.[58] We therefore need take no further action with respect to Mr. Harp's request.

III. CONCLUSION

We have reviewed Mr. Harp's appeal in its entirety, and find that it has no merit. We therefore *affirm* the Board's denial of Mr. Harp's intervention petition.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 12th day of August 2010.

[58] Staff Brief at 8. *See* Acknowledgement of Request for Enforcement Action Against U.S. Army Installation Command (Schofield Barracks and Pohakuloa Training Area, Hawaii), 75 Fed. Reg. 24,755 (May 5, 2010).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of **Docket Nos. 52-027-COL**
52-028-COL

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)

August 27, 2010

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

In exercising our appellate responsibilities, we defer to a licensing board's rulings on contention admissibility unless an appeal points to an error of law or abuse of discretion.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

Our contention admissibility requirements are deliberately strict, and we will reject any contention that does not satisfy them.

MEMORANDUM AND ORDER

This proceeding concerns the application of South Carolina Electric and Gas Company and South Carolina Public Service Authority (jointly, Applicants) for a combined license (COL) under 10 C.F.R. Part 52 to construct and operate two Westinghouse AP1000 nuclear reactor units at the Virgil C. Summer Nuclear Station (Summer) in South Carolina. The Sierra Club and Friends of the Earth (jointly, Petitioners) have appealed LBP-10-6,[1] an Atomic Safety and Licensing Board decision denying the only unresolved portions of their intervention petition and terminating the contested portion of this proceeding.[2] Applicants and the NRC Staff oppose the appeal.[3] We affirm LBP-10-6 and terminate the contested portion of this proceeding.

I. PROCEDURAL BACKGROUND

Following publication of the notice of hearing for this proceeding, Petitioners filed a petition to intervene, seeking a hearing and setting forth three contentions.[4] In those portions of their Contention 3 that are at issue in this appeal, Petitioners assert that Applicants' Environmental Report (ER) inadequately addressed the need for power, energy alternatives, and costs and schedule for the proposed reactors.[5]

In LBP-09-2, the Board denied the petition to intervene and request for hearing. The Board found, among other things, that Friends of the Earth had not demonstrated standing to participate in the proceeding, and that neither Friends of the Earth nor Sierra Club had submitted an admissible contention. Petitioners appealed LBP-09-2.

In CLI-10-1, we affirmed the Board's decision in large part, but reversed and remanded the case to the Board on the limited grounds that it had erred in

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[1] 71 NRC 350 (2010).

[2] Brief on Appeal of Sierra Club and Friends of the Earth (Mar. 26, 2010) (Appeal); Notice of Appeal by Sierra Club and Friends of the Earth (Mar. 26, 2010).

[3] South Carolina Electric and Gas Company Brief in Opposition to Sierra Club and Friends of the Earth Appeal from LBP-10-6 (Apr. 6, 2010); NRC Staff Brief in Opposition to Appeal of LBP-10-06 by Sierra Club and Friends of the Earth (Apr. 6, 2010).

[4] *See* Notice of Order, Hearing and Opportunity to Petition for Leave to Intervene, 73 Fed. Reg. 60,362 (Oct. 10, 2008); Petition to Intervene and Request for Hearing by Sierra Club and Friends of the Earth (Dec. 8, 2008) (Joint Petition). A third petitioner (Mr. Joseph Wojcicki) also sought intervenor status. The Board denied his petition, we affirmed that denial, and, consequently, he is not a participant in this appeal. *See* LBP-09-2, 69 NRC 87 (2009), *aff'd in part and rev'd in part,* CLI-10-1, 71 NRC 1 (Jan. 7, 2010).

[5] *See* Joint Petition at 24-26.

denying standing to Friends of the Earth and had given insufficient consideration to Contention 3B, where Petitioners argued that the ER:

> fails to contain sufficient data to aid the Commission in its development of an independent analysis in [that] . . . the Applicant almost completely ignores demand-side management, undervaluing opportunities for cost-effective energy efficiency and demand response or load management.

The Board in LBP-09-2 had ruled that Contention 3B was *per se* inadmissible on the ground that it contravened our *Clinton* Early Site Permit decision.[6] In that decision, we had concluded that the National Environmental Policy Act's (NEPA) "rule of reason" excluded consideration of demand-side management because the proposed new plant at the Clinton site was intended to be a merchant plant, selling power on the open market, and it was therefore not feasible for its licensee to engage in demand-side management.[7]

In CLI-10-1, we held that the Board had erred in relying upon *Clinton.*[8] Specifically, we concluded that the Board had failed to appreciate a critical distinction between the proposed Clinton and Summer plants — unlike Clinton, the Summer plant would produce baseload power for a defined service area, sold by a regulated utility. We ruled in CLI-10-1 that the Board should not have based its admissibility ruling on our *Clinton* decision, but instead should have considered the contention under our regulations governing contention admissibility. We therefore remanded the case to the Board with instructions to do the latter.

We also ruled that, if the Board on remand were to rule in Petitioners' favor regarding the admissibility of Contention 3B, then the Board should also reconsider its prior ruling in LBP-09-2 that Contentions 3F and 3G were inadmissible.[9] In those contentions, Petitioners argued that the ER:

> fails to contain sufficient data to aid the Commission in its development of an independent analysis [because] . . . Applicant's cost estimate for construction and operation fails to take into account recent rapid increases in the cost of inputs for construction . . . , is based on an unrealistic schedule, and assumes a settled and

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[6] LBP-09-2, 69 NRC at 109 n.86 (citing *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 806-08 (2005)).

[7] *See Clinton,* CLI-05-29, 62 NRC at 805-08 (holding that consideration of "energy efficiency" was not a reasonable alternative, where that alternative would not achieve the applicant's goal of providing additional power to sell on the open market, and was not possible for the applicant, who had no transmission or distribution system of its own, and no link to the ultimate power consumer).

[8] CLI-10-1, 71 NRC at 20-21.

[9] CLI-10-1, 71 NRC at 24 (referring to LBP-09-2, 69 NRC at 112, and relying upon *Consumers Power Co.* (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 162 (1978)).

approved design for its proposed AP1000, which has not yet been established and for which there is no firm date for Commission determination.[10]

We indicated in CLI-10-1 that these cost-related contentions were potentially relevant only if an environmentally preferable alternative had been identified, which would be a possibility in this case only if Contention 3B were admitted.[11] Conversely, we also indicated by necessary implication that if the Board were to exclude Contention 3B, then it must also exclude Contentions 3F and 3G.

On remand, the Board engaged in a painstaking and thorough examination of Petitioners' arguments and evidence regarding Contention 3B, along with a shorter discussion about Contentions 3F and 3G. The Board ultimately concluded that none of the three qualified as an admissible contention. Much of the analysis in LBP-10-6 turned on the Board's conclusions that Petitioners' arguments and evidence were cursory, speculative, insufficiently supported, and/or insufficiently connected to the application's purported flaws.[12]

II. DISCUSSION

In exercising our appellate responsibilities, we defer to a licensing board's rulings on contention admissibility unless an appeal points to an error of law or abuse of discretion.[13] We find neither of these flaws in LBP-10-6. Much of Petitioners' appeal is a mere recitation of earlier arguments, without explanation as to how they demonstrate legal error or abuse of discretion on the Board's part.[14] Many of those appellate arguments constitute *de facto* requests for reconsideration of CLI-10-1, although Petitioners do not attempt to satisfy our reconsideration standards as set forth in 10 C.F.R. §§ 2.323(e), 2.341(d), and 2.345.[15] And the

[10] Joint Petition at 25-26.

[11] 71 NRC at 24.

[12] *See* LBP-10-6, 71 NRC at 364-65, 368-82.

[13] *See, e.g., Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (2009).

[14] *See PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007) (criticizing a petitioner who "simply repeats or adds to his previous claims").

[15] *See, e.g.,* Appeal at 1, 8, 9, 19, 20 (Petitioners' explicit and implicit references to Contention 3E, which we did not remand to the Board in CLI-10-1). *See also* Appeal at 9-10 (Petitioners' arguments regarding Contention 3A), 14 & 20 (same regarding Contention 3C), and 13-14, 18-20 (same regarding Contention 3D); CLI-10-1, 71 NRC at 16-19 (affirming Board's ruling that Contention 3A was inadmissible), 21-22 (same regarding Contentions 3C and 3D). Setting aside the question of timeliness, Petitioners have neither sought leave to request reconsideration of CLI-10-1 nor set forth compelling circumstances that Petitioners could not reasonably have anticipated and that would

(Continued)

remainder of the appeal is a presentation of new arguments that could have been, but were not, presented earlier in this proceeding.[16] In all of these respects, Petitioners have contravened our adjudicatory practice and procedure.

As we observed earlier in this proceeding, our contention admissibility "requirements are deliberately strict, and we will reject any contention that does not satisfy" them.[17] We find no error of law or abuse of discretion in the Board's conclusion that Petitioners' Contention 3B fails to satisfy these standards, and we affirm based on the Board's thorough analysis in LBP-10-6.[18] Further, given our affirmation of the Board's ruling on the inadmissibility of Contention 3B, we need not reach Petitioners' arguments regarding Contentions 3F and 3G.[19]

III. CONCLUSION

For the reasons set forth above, we *affirm* LBP-10-6 and terminate the contested portion of this proceeding.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 27th day of August 2010.

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render CLI-10-1 invalid. *See generally Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 252 (2010); *Consumers Energy Co.* (Big Rock Point Independent Spent Fuel Storage Installation), CLI-07-21, 65 NRC 519, 522 (2007).

[16] *See* Appeal at 21-23. *See, e.g., USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 458 (2006) ("absent extreme circumstances, we will not consider on appeal either new arguments or new evidence supporting the contentions which the Board never had the opportunity to consider" (footnote, internal quotation marks, and brackets omitted)).

[17] CLI-10-1, 71 NRC at 7 (quoting *USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006)). See 10 C.F.R. § 2.309(f)(1).

[18] *See, particularly,* LBP-10-6, 71 NRC at 373-80.

[19] As noted above, we held in CLI-10-1 that those two contentions could become relevant only if Contention 3B were admitted. 71 NRC at 24 & n.118.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of **Docket No. 50-293-LR**

ENTERGY NUCLEAR GENERATION COMPANY and ENTERGY NUCLEAR OPERATIONS, INC.
(Pilgrim Nuclear Power Station) **August 27, 2010**

The Commission reviews an intervenor's motion for disqualification of an Atomic Safety and Licensing Board judge. The Commission agrees with the judge's determination that the motion did not provide any ground warranting disqualification.

RECUSAL

Under NRC regulations, if an Atomic Safety and Licensing Board member declines to grant a party's recusal motion, the motion is referred to the Commission to determine the sufficiency of the grounds alleged.

MEMORANDUM AND ORDER

Pursuant to 10 C.F.R. § 2.313(b)(2), Pilgrim Watch, the intervenor in this license renewal proceeding, moved for disqualification of Administrative Judge

Paul B. Abramson.[1] In a recent decision, Judge Abramson denied the motion.[2] Under our regulations, if an Atomic Safety and Licensing Board member declines to grant a party's recusal motion, the motion is referred to the Commission to "determine the sufficiency of the grounds alleged."[3] Accordingly, we have reviewed Pilgrim Watch's motion, Judge Abramson's decision, and the parties' related briefs.[4] For the reasons outlined below, we agree that disqualification is not warranted.

I. DISCUSSION

Pilgrim Watch's motion relies upon the disqualification standard for federal court justices, judges, and magistrates, found in 28 U.S.C. § 455. Specifically, Pilgrim Watch relies upon the following provisions of section 455:

> (a) Any justice, judge, or magistrate judge of the United States shall disqualify himself in any proceeding in which his impartiality might reasonably be questioned.
>
> (b) He shall also disqualify himself in the following circumstances:
>
> (1) Where he has a personal bias or prejudice concerning a party, or personal knowledge of disputed evidentiary facts concerning the proceeding . . . .

Judge Abramson's decision likewise refers to the section 455 standard. By its own terms, the disqualification standard under 28 U.S.C. § 455 is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification under 10 C.F.R. § 2.313, and it provides a helpful framework for such an assessment.[5] We apply the standard here, and find disqualification to be unwarranted.

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[1] Motion on Behalf of Pilgrim Watch for Disqualification of Judge Paul B. Abramson in the Pilgrim Nuclear Power Station Relicensing Proceeding (May 14, 2010) (Pilgrim Watch Motion).

[2] Decision (Denying Motion on Behalf of Pilgrim Watch for My Self-Disqualification from the Remand Proceedings and Referring Motion to the Commission) (June 10, 2010) (unpublished) (Decision).

[3] *See* 10 C.F.R. § 2.313(b)(2).

[4] Our rules do not contemplate additional briefing by the parties following a referral pursuant to section 2.313(b)(2). Nonetheless, all three parties filed additional pleadings before us. As a matter of discretion we took these filings into account in making today's decision.

[5] *See Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-9, 47 NRC 326, 331 (1998); *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), CLI-82-9, 15 NRC 1363, 1365-67 (1982). *See also Nuclear Information and Resource Service v. NRC,* 509 F.3d 562, 571 (D.C. Cir. 2007); *Metropolitan Council of NAACP Branches v. Federal Communications Commission,* 46 F.3d 1154, 1164-65 (D.C. Cir. 1995).

Pilgrim Watch bases its motion for disqualification on two sentences spoken at a May 4, 2010 telephone conference. In requesting the resume of David Chanin, a Pilgrim Watch expert on the MACCS2 (MELCOR Accident Consequence Code System 2) code, Judge Abramson stated the following: "Let me ask you to submit [Chanin's] resume because I don't believe he wrote the code. I was involved with a lot of that personally."[6]

Pilgrim Watch's motion notes that the MACCS2 code was used to perform the Severe Accident Mitigation Alternatives (SAMA) analysis challenged in this proceeding, and that there are issues before the Board on remand that go to the adequacy of the code's straight-line Gaussian plume model as applied to the Pilgrim site.[7] Pilgrim Watch argues that Judge Abramson's brief statement "makes clear that he has personal knowledge" of the MACCS2 code, and that "he has (or at least reasonably appears likely to have) his personal views of its adequacy."[8] Pilgrim Watch therefore stresses that Judge Abramson "should disqualify himself because 'he . . . has personal knowledge of disputed evidentiary facts concerning the proceeding.'"[9] Pilgrim Watch further claims that Judge Abramson's statement that he did "not believe" that Mr. Chanin "wrote the code" would "clearly . . . cause a reasonable person to question Judge Abramson's impartiality and whether he has a personal bias or prejudice concerning Mr. Chanin, Pilgrim Watch's expert witness."[10]

In denying the recusal motion, Judge Abramson initially acknowledges that he "can understand how [Pilgrim Watch] reached the conclusion" that he was involved in developing the MACCS2 code.[11] But he then goes on to clarify that in fact he had "no personal involvement in the creation of the MACCS2 code" and has "no personal knowledge of disputed evidentiary facts concerning it."[12] He explains that what he meant by the words "a lot of that" is that he worked earlier in his career as a scientist developing "computer codes for accident analysis," including work modeling various phenomena and "incorporating such models into nuclear reactor safety analysis codes."[13] Judge Abramson emphasizes that he had "*absolutely nothing to do with the modeling or development of the MACCS2 code or any of its predecessor versions,*" and possesses "no particular knowledge of the modeling or methods of MACCS2 beyond that which would be expected of any scientist reasonably knowledgeable in this area of nuclear

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[6] Transcript (May 4, 2010) at 665.

[7] *See* Pilgrim Watch Motion at 3.

[8] *Id.* at 4.

[9] *Id.* at 4 (quoting 28 U.S.C. § 455(b)(1)).

[10] *Id.*

[11] Decision at 7.

[12] *Id.*

[13] *Id.*

science."[14] Judge Abramson additionally states that under the Atomic Energy Act, the scientist members of the Licensing Board are expected, indeed *required,* to have "technical or other qualifications . . . appropriate to the issues to be decided," and therefore any background that he may have in "modeling or computer code mechanics" would be "fully consistent with the Congressional mandate" regarding NRC adjudicatory hearings.[15]

Judge Abramson further explains that on remand the central "issues concern the ability of the MACCS2 computer code to compute the effects of certain meteorological patterns," and whether there is significant "error in the modeling of meteorology."[16] He then says that he never had "any involvement whatsoever with [the] modeling of meteorology," nor any prior knowledge of or experience with the "*entire* MACCS2 code."[17] Noting that the standard for disqualification under 28 U.S.C. § 455 is whether the "reasonable" person who "know[s] all the circumstances, would harbor doubts about the judge's impartiality,"[18] Judge Abramson concludes that there is nothing in his professional background that might lead an "impartial observer, cognizant of all the circumstances, to reasonably believe" that he has "prejudged the capability (or, for that matter, any lack of such capability) of MACCS2 to predict the phenomena at issue in this proceeding."[19]

As to his request for Mr. Chanin's resume, Judge Abramson explains that he did not single out Pilgrim Watch or Mr. Chanin, but requested all of the parties to provide the Board with the "full credentials on their experts."[20] He further explains that Pilgrim Watch's representative repeatedly stated that Mr. Chanin "wrote the code," which implied to Judge Abramson that Mr. Chanin was the "sole author" of the MACCS2 code.[21] Because this "bare implication of sole authorship was repeated many times by [Pilgrim Watch]," Judge Abramson states that he wanted to better understand the extent of Mr. Chanin's role in developing the code, given that there are many stages to code development, including developing and implementing models, organizing and supervising programming and computational methodology, and verifying and validating computations, and Pilgrim Watch appeared to be suggesting that Mr. Chanin "personally and by

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[14] *Id.* at 8-9 (emphasis in original).

[15] *Id.* at 12-13 (referencing Atomic Energy Act and its history regarding establishment of the Atomic Safety and Licensing Board Panel).

[16] *See id.* at 14.

[17] *See id.* at 9, 16 (emphasis added).

[18] *Id.* at 10 (quoting *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), CLI-84-20, 20 NRC 1061, 1078 n.46 (1984) (citation omitted)).

[19] *Id.*

[20] *Id.* at 17-18 (quoting Tr. at 653).

[21] *Id.* at 16, 18-19.

himself" performed *all* of these functions.[22] Judge Abramson states that the information then in the record did not specify what roles Mr. Chanin had in developing the MACCS2 code, nor specified his particular areas of expertise. Because the core issue on remand involves meteorological modeling, Judge Abramson states that he appropriately wanted to elicit further information on Mr. Chanin's involvement and knowledge of the meteorological model in the MACCS2 code. Judge Abramson states that he has not prejudged Mr. Chanin's expertise and has no bias against him.

As Judge Abramson points out, the proper inquiry under 28 U.S.C. § 455 is made from the perspective of "a reasonable person, *knowing all the circumstances.*"[23] "That an unreasonable person, focusing on only one aspect of the story, might perceive a risk of bias is irrelevant."[24] "Section 455(a) requires a showing that would cause an objective, disinterested observer fully informed of the underlying facts [to] entertain significant doubt that justice would be done absent recusal."[25] Judge Abramson has explained on the record the context in which his comments were made, and why they did not call for his disqualification. We agree with Judge Abramson. Given his explanation of his original remarks, an impartial observer, cognizant of the record, would find no reasonable factual basis to question his impartiality or question whether he has knowledge of disputed evidentiary facts going to the adequacy of the MACCS2 code.

Pilgrim Watch suggests that Judge Abramson's prior "experience in modeling, creating and working with computer codes" to predict accident scenarios *itself* constitutes "extrajudicial knowledge of . . . disputed evidentiary facts."[26] But mere experience or background in a relevant technical field does not imply knowledge of the specific disputed facts in a case.[27] Here, Judge Abramson's prior experience in accident modeling ended 26 years ago,[28] and did not involve either the MACCS2 code or meteorological modeling of any kind. It would be purely speculative to assume that Judge Abramson's prior experience in the field of severe accident modeling (a field encompassing an array of topics) involved the specific modeling evidence or facts that may be material to the disposition of

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[22] *Id.* at 18-19.

[23] *Sao Paolo State of the Federative Republic of Brazil v. American Tobacco Co., Inc.,* 535 U.S. 232-33 (2002) (emphasis in original).

[24] *In re Sherwin-Williams Co.,* 607 F.3d 474, 477 (7th Cir. 2010).

[25] *In re Aguinda,* 241 F.3d 194, 201 (2d Cir. 2001) (internal quotation omitted).

[26] Pilgrim Watch Response to Judge Paul B. Abramson Decision on Recusal Motion (June 16, 2010) (Pilgrim Watch Response to Decision) at 11 (emphasis in original).

[27] *See, e.g., United States v. Bonds,* 18 F.3d 1327, 1330-31 (6th Cir. 1994); *In re Aguinda,* 241 F.3d at 204-05; *Clarkco Landfill Co. v. Clark City Solid Waste Management District,* 20 F. Supp. 2d 1185, 1191 (S.D. Ohio 1998).

[28] *See* Decision at 8 n.18.

this proceeding on remand. Moreover, in this — as in every NRC adjudicatory proceeding — Licensing Board judges remain under a continuing obligation to withdraw if a ground for disqualification arises.[29]

An additional aspect of Judge Abramson's decision warrants special comment. Going beyond the four corners of Pilgrim Watch's recusal motion, Judge Abramson's decision refers to "fundamental" disagreement over the scope of issues on remand.[30] Moreover, the record reflects that there may be some confusion about the intent of our remand decision in CLI-10-11. We therefore take this opportunity to clarify matters and perhaps simplify the proceeding on remand.

Judge Abramson correctly notes that the MACCS2 code contains a meteorological atmospheric dispersion module (called ATMOS) that uses a straight-line Gaussian plume dispersion model. The ATMOS module is used to predict the transport, dispersion, and deposition of radiologic material following a severe accident. Other modules in the MACCS2 code (called EARLY and CHRONC) use the ATMOS dispersion modeling results to calculate expected accident consequences (e.g., from radiological doses and land contamination) and complete the SAMA cost-benefit risk analysis. Judge Abramson is correct that the issue on remand focuses on the adequacy of the atmospheric dispersion modeling in the Pilgrim SAMA analysis, not the methodology or underlying assumptions used for *translating* the atmospheric dispersion modeling results into economic costs.

Judge Abramson mistakenly assumes, however, that in CLI-10-11 we directed or otherwise *required* that "the MACCS2 [code] computations be redone by varying the meteorological modeling" in the code.[31] In CLI-10-11, we found that material factual disputes remained, and therefore it had been inappropriate for the Board majority to dismiss Pilgrim Watch's dispersion modeling challenge.[32] We also stressed that the mere fact that a plume model may not reflect all meteorological phenomena would not necessarily mean that the Pilgrim SAMA cost-benefit conclusions are incorrect.[33] We noted that the record contained specific, "potentially significant considerations" going to whether Pilgrim Watch's meteorological claims could credibly have a material effect on the SAMA cost-benefit conclusions, but that the Board had not addressed any of these considerations.[34]

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[29] *See* 10 C.F.R. § 2.313(b).

[30] *See* Decision at 2-4, 14-15.

[31] *See id.* at 14 n.40.

[32] *See* CLI-10-11, 71 NRC at 301-05.

[33] *See id.* at 303-05, 307.

[34] *Id.* at 304 (referencing Entergy's "WSMS Report"). We additionally noted in CLI-10-11 that it is NRC practice for SAMA analysis to utilize mean consequence values, which results in an averaging of potential consequences. *See id.* at 316-17. Because Pilgrim Watch apparently questions this practice, *see, e.g.,* Tr. at 637, it would be appropriate for the Board on remand to consider whether the NRC's practice is reasonable for a SAMA analysis, and whether Pilgrim Watch's concerns are timely raised.

Judge Abramson's decision suggests that the remand should focus only on changing variables in the meteorological "input and models" used in the ATMOS module.[35] He has encouraged the parties' experts to discuss whether such an approach would be meaningful, but it is not clear that they will agree that varying inputs would produce meaningful results.[36] This remains, therefore, a disputed question. Indeed, what Judge Abramson characterizes as a dispute over the "scope" of the remanded meteorological patterns issue appears at least partially to be a dispute over *how to assess* the remanded issue, for which there may not be one clear-cut answer.

Notably, there are practical constraints on the degree to which the meteorological modeling can be altered in the MACCS2 code, which is the most current, established code for NRC SAMA analysis. As Pilgrim Watch states, the straight-line Gaussian plume model is "embedded in the MACCS2 code."[37] Therefore, it is not possible simply to "plug in" and run a different atmospheric dispersion model in the MACCS2 code to see if the SAMA cost-benefit conclusions change. The three modules (ATMOS, EARLY, and CHRONC) in the MACCS2 code are *integral* parts of the code.

As we earlier emphasized, NEPA requirements are "tempered by a practical rule of reason."[38] An environmental impact statement is not intended to be "a research document."[39] If relevant or necessary meteorological data or modeling methodology prove to be unavailable, unreliable, inapplicable, or simply not adaptable for evaluating the SAMA analysis cost-benefit conclusions, there may be no way to assess, through mathematical or precise model-to-model comparisons, how alternate meteorological models would change the SAMA analysis results. Some assessments may necessarily be qualitative, based simply on expert opinion.

Ultimately, NEPA requires the NRC to provide a "reasonable" mitigation alternatives analysis, containing "reasonable" estimates, including, where appropriate, full disclosures of any known shortcomings in available methodology, disclosure of incomplete or unavailable information and significant uncertainties, and a reasoned evaluation of whether and to what extent these or other considerations

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[35] *See* Decision at 15.

[36] *See, e.g.,* Tr. at 618, 645 (opinion of Pilgrim Watch expert Dr. Bruce Egan that the sea breeze effect is three-dimensional and cannot be reflected by a straight-line plume model).

[37] *See* Pilgrim Watch Response to Decision at 4.

[38] *See Communities, Inc. v. Busey,* 956 F.2d 619, 626 (6th Cir. 1992); CLI-10-11, 71 NRC at 315-16. *See also, e.g., Hells Canyon Alliance v. United States Forest Service,* 227 F.3d 1170, 1184-85 (9th Cir. 2000).

[39] *See Town of Winthrop v. Federal Aviation Administration,* 533 F.3d 1, 13 (1st Cir. 2008).

credibly could or would alter the Pilgrim SAMA analysis conclusions on which SAMAs are cost-beneficial to implement.[40]

II. CONCLUSION

For the reasons outlined in this decision, we agree with Judge Abramson's determination that Pilgrim Watch's motion does not provide any ground warranting his disqualification.

IT IS SO ORDERED.[41]

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 27th day of August 2010.

[40] *See, e.g., Laguna Greenbelt, Inc. v. United States Department of Transportation,* 42 F.3d 517, 528 (9th Cir. 1994); *Lands Council v. McNair,* 537 F.3d 981, 1001-09 (9th Cir. 2008), *abrogated in part on other grounds by Winter v. Natural Resources Defense Council, Inc.,* 555 U.S. 7 (2008); *Communities,* 956 F.2d at 626; *Oregon Natural Resources Council Fund v. Goodman,* 505 F.3d 884, 897 (9th Cir. 2007); *Village of Bensonville v. Federal Aviation Administration,* 457 F.3d 52, 71 (D.C. Cir. 2006); *New Jersey Department of Environmental Protection v. NRC,* 561 F.3d 132, 144 (3d Cir. 2009); *Salmon River Concerned Citizens v. Robertson,* 32 F.3d 1346, 1358-60 (9th Cir. 1994); *Sierra Club v. United States Department of Transportation,* 310 F. Supp. 2d 1168, 1188 (D. Nev. 2004); *San Francisco Baykeeper v. United States Army Corps of Engineers,* 219 F. Supp. 2d 1001, 1013-16 (N.D. Calif. 2002).

[41] Commissioner Apostolakis did not participate in this matter.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Gregory B. Jaczko, Chairman
Kristine L. Svinicki
George Apostolakis
William D. Magwood, IV
William C. Ostendorff

In the Matter of **Docket No. IA-05-052**

DAVID GEISEN **August 27, 2010**

ENFORCEMENT PROCEEDINGS

For purposes of determining whether an actor has deliberately submitted statements to the NRC which he knows are inaccurate or incomplete, "knowledge" of a fact requires not only an awareness of that fact but also an understanding of its significance. The Commission approves the Board majority's finding that "knowledge" does not necessarily follow simply from previous exposure to individual facts. Instead, to have knowledge, an individual must have a current appreciation of those facts and of what those facts mean in the circumstances presented.

ENFORCEMENT PROCEEDINGS

In explaining the factors considered in deciding the factual issue whether the target of a Staff enforcement action had acted knowingly, the Board did not create a new legal "test" requiring that the Staff contradict all factors that the Board considered. The Board's determination of the "knowledge" question was a finding of fact, not of law.

ENFORCEMENT PROCEEDINGS

STANDARD OF REVIEW: CLEAR ERROR

To show clear error, the appellant must demonstrate that the Board's factual findings are "not even plausible in light of the record viewed in its entirety." *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) (quoting *Kenneth G. Pierce* (Shorewood, Illinois), CLI-95-6, 41 NRC 381, 382 (1995) (in turn quoting *Anderson v. Bessemer City,* 470 U.S. 564, 573-76 (1985))).

ENFORCEMENT PROCEEDINGS

STANDARD OF REVIEW: CLEAR ERROR

The Commission will not lightly overturn a Board's finding of fact, particularly where much of the evidence is subject to varied interpretation.

ENFORCEMENT PROCEEDINGS

STANDARD OF REVIEW: CLEAR ERROR

The Board did not commit clear error in finding that an enforcement action target did not "know" certain facts despite Staff's showing that the target was the recipient list of documents and e-mails that included those facts.

ENFORCEMENT PROCEEDINGS

STANDARD OF REVIEW: CLEAR ERROR

The Board did not commit clear error in believing the explanations given by the target of an enforcement action as to why he did not think that information he provided the NRC was false. The enforcement target claimed that he had relied on other people to verify the accuracy of certain information; that he had focused only on his own area of responsibility in verifying the technical accuracy of the correspondence sent to NRC; and that he had focused his attention on responding to the NRC's request for other information than that found to be false. While none of these circumstances necessarily "proved" that the enforcement target did not know that the information provided was false, the Board could plausibly find the target's testimony credible.

ENFORCEMENT PROCEEDINGS

STANDARD OF REVIEW

The Board did not hold, as a matter of law, that a person cannot be held responsible for knowingly concurring in materially incomplete and inaccurate representations as long as he can point to someone more directly responsible for the representations. Rather, the Board found, as a matter of fact, that the particular enforcement target did not know the truth because he relied on others to verify statements within their area of responsibility.

STANDARD OF REVIEW

FINDINGS OF FACT

That the majority gave greater weight to the enforcement action target's evidence than to the Staff's evidence is not a basis for overturning the majority's findings of fact. Such weighing of evidence and testimony is inherent in, and at the very heart of, adjudicatory fact-finding — an area where the Commission has traditionally deferred to the licensing boards. *See, e.g., AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 259 (2009).

STANDARD OF REVIEW

FINDINGS OF FACT

Regardless of whether the Commission would have made the same findings as the majority in its position, it recognized that the Board's factual analysis and findings were detailed, thorough, internally consistent, and supported by record evidence. *See Watts Bar,* CLI-04-24, 60 NRC at 189 ("'We will not overturn a hearing judge's findings simply because we might have reached a different result.'") (quoting *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93-94 (1998) (in turn quoting *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 1), ALAB-881, 26 NRC 465, 473 (1987))). Further, the Board had the significant advantage of observing the witnesses firsthand and judging their demeanor and credibility. For these reasons, the Commission declined to overturn the Board's findings of fact.

STANDARD OF REVIEW

FINDINGS OF FACT

CIRCUMSTANTIAL EVIDENCE

That the majority assigned less weight to circumstantial evidence showing that the enforcement target knew the falsity of his statements than to the target's direct testimony that he did not know of its falsity did not amount to a legal determination that circumstantial evidence must be disregarded. Had the Board actually made *that* determination, it would have committed legal error for the reasons set forth by the Staff.

STANDARD OF REVIEW

FINDINGS OF FACT

The weight the Board assigns to various evidence falls squarely within the bounds of a factual finding related to weighing evidence to which the Commission defers.

STANDARD OF REVIEW

HARMLESS ERROR

The Board erred in relying on a report submitted during the sanctions portion of the hearing when it had committed not to rely on that evidence in considering the existence of a violation. But where the appellant failed to show how it was harmed by the error, the error cannot be found to have been prejudicial.

COLLATERAL ESTOPPEL

The Board did not err in refusing to apply collateral estoppel to a prior criminal conviction where the NRC Staff conceded that the standard of knowledge — "deliberate ignorance" — that was applied in the criminal action is broader than the standard of knowledge applied in the Commission enforcement action.

COLLATERAL ESTOPPEL

Before it can apply collateral estoppel, a Board must determine that the issue decided in the prior action is identical to the issue to be decided in the matter before it.

COLLATERAL ESTOPPEL

In determining whether to apply collateral estoppel, a board should not look into the jury trial to determine whether the verdict was "correct." *Toledo Edison Co.* (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-378, 5 NRC 557, 562-63 (1977). *See also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-02-20, 56 NRC 169, 182 (2002) ("The correctness of the prior decision is not . . . a public policy factor upon which the application of the doctrine of collateral estoppel depends."). The Board did not err in declining to examine the evidence presented in the jury trial to try to determine what issue the jury actually decided when that determination is rendered unclear by a special verdict.

MEMORANDUM AND ORDER

On January 4, 2006, the NRC Staff issued an Enforcement Order against David Geisen, charging that he had engaged in deliberate misconduct by contributing to the submission of information to the NRC that he knew was incomplete or inaccurate in some material respect,[1] in violation of 10 C.F.R. § 50.5(a)(2).[2] At the time of the asserted misconduct, Mr. Geisen was employed at the Davis-Besse Nuclear Power Station (Davis-Besse), a facility operated by FirstEnergy Nuclear Operating Company (FENOC). The Enforcement Order barred Mr. Geisen, effective immediately, from involvement in all NRC-licensed activities for 5 years. Mr. Geisen challenged the Enforcement Order before the Licensing Board. During the prehearing portion of this adjudication, Mr. Geisen and the Staff stipulated to the falsity of certain statements made by FENOC and Mr. Geisen. But Mr. Geisen maintained throughout the adjudication — and still maintains — that he did not know at the time he made those statements that they were false.

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[1] Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately), IA-05-052 (Jan. 4, 2006) (ADAMS Accession No. ML053560094), 71 Fed. Reg. 2571 (Jan. 17, 2006) (Enforcement Order). The Order identified six instances where, according to the Staff, Mr. Geisen had deliberately provided such information: Serial Letters 2731 (Sept. 4, 2001), 2735 (Oct. 17, 2001) and 2744 (Oct. 30, 2001); an October 3, 2001 teleconference; an October 11, 2001 briefing to the Commissioners' technical assistants; and a November 9, 2001 meeting of the NRC's Advisory Committee on Reactor Safeguards.

[2] Section 50.5 provides, in relevant part, that "[a]ny . . . employee of a licensee . . . may not . . . [d]eliberately submit to the NRC [or] a licensee . . . information that [employee] *knows* to be incomplete or inaccurate in some respect material to the NRC." 10 C.F.R. § 50.5(a)(2) (emphasis added). The Staff further found that Mr. Geisen's actions had placed the licensee in violation of 10 C.F.R. § 50.9. Enforcement Order at 14.

The Board conducted an evidentiary hearing, and a majority of the Board issued the Initial Decision that is before us today on appeal.[3] In that decision, the majority set aside the Enforcement Order on the ground that the Staff had not demonstrated by a preponderance of the evidence that Mr. Geisen had committed the asserted knowing misrepresentations. Based on the evidence presented, the majority also prohibited the Staff from using the portion of the Order barring Mr. Geisen from returning to employment in the regulated nuclear industry after his employment ban is lifted or expires.[4]

The Staff has filed a petition for review of LBP-09-24,[5] pursuant to 10 C.F.R. § 2.341(b)(2) and (4). The Staff asserts that the Initial Decision "contained legal conclusions that were contrary to or without established precedent; raised substantial questions of law, policy, and discretion; involved prejudicial procedural errors; and reflected findings of material fact that were clearly erroneous."[6] Based on these assertions, the Staff asks that we grant its petition, reverse LBP-09-24, and reinstate Mr. Geisen's 5-year employment ban.[7] Mr. Geisen opposes the Staff's petition for review.[8] We grant the Staff's petition and affirm LBP-09-24.

To put this decision in context, the violations surrounding Davis-Besse resulted in a variety of agency activities, including actions taken against FENOC which resulted in its shutdown for several years and issuance of a $5.45 million fine, the largest fine to date in the agency's history. Moreover, both the NRC and the United States Department of Justice (DOJ) pursued actions against the company and several individuals, most of which resulted in penalties being upheld. This ruling is based upon the specific facts and circumstances of the Board's ruling in LBP-09-24 and should only be viewed in that context.

I. BACKGROUND

The majority decision provides a detailed and useful synopsis of the case's technical background and relevant technical documents.[9] It also includes a detailed summary of the factual and procedural background, together with an explanation of the interrelationship between this proceeding and the parallel criminal case

[3] LBP-09-24, 70 NRC 676 (2009). Administrative Judges Farrar and Trikouros formed the majority. Chief Administrative Judge Hawkens dissented from this ruling. Judge Farrar subsequently provided additional views. *See* Memorandum (Additional Views of Judge Farrar), 70 NRC 796 (Dec. 11, 2009).

[4] *Id.* at 794. *See also id.* at 778.

[5] *See* NRC Staff's Petition for Review of LBP-09-24 (Sept. 21, 2009) at 1 n.2 (Staff Petition).

[6] *Id.* at 2-3 (tracking the criteria set forth in 10 C.F.R. § 2.341(b)(4)(i)-(iv)).

[7] *Id.* at 3.

[8] David Geisen's Answer Opposing the NRC Staff's Petition for Commission Review of the Board's Initial Decision Regarding the Enforcement Order Against Him (Oct. 13, 2009) (Geisen Answer).

[9] LBP-09-24, 70 NRC at 690-99.

against Mr. Geisen in federal court.[10] Given the Board's thorough discussion, we find it unnecessary to set out here more than a brief sketch of the factual, technical, and legal background of this case.

In 2001, the Commission issued various generic communications to its reactor licensees regarding a newly discovered risk of circumferential cracking of nozzles penetrating the reactor vessel head, including the control rod drive mechanism (CRDM) nozzles and thermocouple nozzles. One of these communications was Bulletin 2001-01,[11] where the NRC Staff required every pressurized water reactor licensee (including FENOC) to "provide information related to the structural integrity of the reactor pressure vessel head penetration . . . nozzles for their respective facilities."[12] The Bulletin explained that reactor coolant leaking through the tight cracks in the nozzles could cause deposits of boron to accumulate on the reactor head.[13] The Bulletin was, by its nature, a vehicle to gather information, not an enforcement tool.[14]

During a 5-week period between October 3 and November 9, 2001, FENOC was repeatedly in touch with the NRC regarding FENOC's responses to the Bulletin.[15] At the time of these communications, FENOC's management was concerned particularly that the Commission would shut down the Davis-Besse plant in December 2001, a few months prior to its scheduled March 2002 refueling outage (RFO 13).[16] After FENOC submitted information and commitments in

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[10] *Id.* at 686-89.

[11] Staff Ex. 8, NRC Bulletin 2001-01: Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles (Aug. 3, 2001) (Bulletin) (Staff Exhibits — Volume 1, Exhibits 1-20 (Part 1) are available at ADAMS Accession No. ML093100167) (Staff Exhibits, Part 1, at 89).

[12] *Id.* at 1.

[13] *Id.* at 4-5.

[14] *See id.* at 1, 10-13; Notice of Issuance, Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles; Issue, 66 Fed. Reg. 41,631 (Aug. 8, 2001).

[15] *See* LBP-09-24, 70 NRC at 697, Table 1 (listing the six communications referenced in note 1, *supra*).

[16] The Staff had "strongly suggest[ed] that Davis-Besse . . . consider shutting down by the end of the year [2001] and perform an inspection of the reactor head vessel CRD nozzles." Staff Ex. 46, E-mail from Dale L. Miller (FENOC) to George.Rombold@exeloncorp.com et al. (Sept. 28, 2001) (Staff Exhibits — Volume 1, Exhibits 21-70 (Part 2) are available at ADAMS Accession No. ML093100169) (Staff Exhibits, Part 2, at 130). Internal corporate memoranda indicate that FENOC's management was concerned that such an early shutdown (3 months earlier than the next planned refueling outage for Davis-Besse) would impose "direct costs" and "replacement power costs" upon the licensee, as well as increase the personnel dosage and generate additional radwaste. Staff Ex. 47, Discussion Agenda: DBNPS Bulletin 2001-01 Response, at unnumbered p. 2 (Oct. 2, 2001) (available in Staff Exhibits, Part 2, at 131).

addition to its response to Bulletin 2001-01, the NRC Staff permitted Davis-Besse's continued operation until February 16, 2002.[17]

A visual inspection in March 2002, during the refueling outage, revealed a serious corrosion cavity in Davis-Besse's reactor vessel head, resulting from boric acid leakage.[18] In response to the discovery of the corrosion cavity, the NRC Staff initiated an investigation. Upon its completion in 2003, the NRC's Office of Investigations reported, among other things, that some of FENOC's responses to the NRC's communications during 2001 were materially incorrect and therefore violated 10 C.F.R. § 50.9(a).[19] And on January 4, 2006, the NRC issued the Enforcement Order against Mr. Geisen, charging that he had "engaged in deliberate misconduct by deliberately providing FENOC and the NRC information that he knew was not complete or accurate in all material respects to the NRC, a violation of 10 CFR 50.5(a)(2)."[20] The Enforcement Order barred Mr. Geisen from working in the regulated nuclear industry for 5 years, until January 4, 2011.

While the NRC Staff was proceeding with investigation and enforcement activities, DOJ initiated a criminal proceeding against Mr. Geisen in the United States District Court for the Northern District of Ohio. DOJ obtained a grand jury indictment against Mr. Geisen in January 2006, based on many of the same facts upon which the NRC Staff relied in the Enforcement Order.[21]

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[17] *See* Memorandum from William D. Travers, Executive Director for Operations, to the Commissioners, entitled "Status of FirstEnergy Nuclear Operating Company Response to Nuclear Regulatory Commission (NRC) Bulletin 2001-01, 'Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles'" (Dec. 6, 2001) (ADAMS Accession No. ML022700362).

[18] Enforcement Order at 2-3.

[19] Geisen Ex. 23, OI Report No. 3-2002-006 (Aug. 22, 2003) (selected portions) (ADAMS Accession No. ML092740337) (date illegible on, or missing from, Ex. 23, but specified in Tr. at 2169 (Dec. 12, 2008)). Section 50.9(a) requires that information provided to the Commission as required by statute, or by the Commission's regulations, orders, or license conditions "be complete and accurate in all material respects."

[20] Enforcement Order at 14. The NRC simultaneously issued enforcement orders against two other FENOC employees who, like Mr. Geisen, had been involved in the cavity corrosion problem at Davis-Besse. *See* Dale Miller, Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately) (Jan. 4, 2006), 71 Fed. Reg. 2579 (Jan. 17, 2006); Steven Moffitt, Order Prohibiting Involvement in NRC-Licensed Activities (Effective Immediately) (Jan. 4, 2006), 71 Fed. Reg. 2581 (Jan. 17, 2006). Earlier, the NRC had issued a fourth enforcement order concerning the same matter. *See* Andrew Siemaszko, Order Prohibiting Involvement in NRC-Licensed Activities (Apr. 21, 2005), 70 Fed. Reg. 22,719 (May 2, 2005).

[21] Indictment, *United States v. Geisen,* No. 3:06CR712 (N.D. Ohio Jan. 19, 2006) (appended as Attachment A to NRC Staff Motion to Hold the Proceeding in Abeyance (Mar. 20, 2006)) (Indictment). The indictment charged Mr. Geisen with five counts of knowingly and willfully concealing and covering up material facts, regarding the condition of Davis-Besse's reactor vessel head and the nature and findings of previous inspections of the reactor vessel head, with respect to:

(Continued)

Mr. Geisen challenged both the criminal charges and the Enforcement Order. Before the Commission, he sought a hearing, which was granted but later held in abeyance pending completion of the criminal trial.[22] The criminal case resulted in a conviction on three counts, including one based on a document (Serial Letter 2744) upon which the NRC Staff also had relied in its Enforcement Order.[23] In May 2008, the trial judge sentenced Mr. Geisen to 3 years' probation (that is, through May 2011), during which time he is prohibited from working in the nuclear power industry.[24] Mr. Geisen's criminal conviction was recently upheld on appeal.[25]

Shortly after the sentencing, Mr. Geisen moved to lift the Commission's abeyance order. The Board agreed and conducted an expedited hearing.[26] The Staff relied principally on the following evidence: (i) the six communications themselves;[27] (ii) four "trip reports" describing business trips taken by Mr. Prasoon Goyal, one of Mr. Geisen's subordinates, associated with the 2001 announcement that the Oconee Nuclear Station had experienced boron leakage;[28] (iii) two condition reports and a photograph that Mr. Geisen would have seen during the 2000 refueling outage (RFO 12); (iv) a June 27, 2001 memorandum prepared by Mr. Goyal, reviewed by Mr. Goyal's supervisor (Mr. Theo Swim) and approved by Mr. Geisen; and (v) certain of Mr. Goyal's e-mail correspondence, of which Mr. Geisen was a direct or copied recipient.[29]

Following the hearing, the majority ruled in favor of Mr. Geisen, finding that the Staff had failed to show by a preponderance of the evidence that Mr. Geisen had *knowingly* (rather than mistakenly) provided the agency incomplete and inaccurate information. Much of the majority's decision turned upon its findings

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(Count 1) documents and communications occurring between September 4, 2001, and February 16, 2002, generally; (Count 2) Serial Letter 2735 (Oct. 17, 2001), specifically; (Count 3) Serial Letter 2741 (Oct. 30, 2001), specifically; (Count 4) Serial Letter 2744 (Oct. 30, 2001), specifically; and (Count 5) Serial Letter 2745 (Nov. 1, 2001), specifically.

[22] CLI-07-6, 65 NRC 112 (2007).

[23] LBP-09-24, 70 NRC at 687 n.3.

[24] Following issuance of LBP-09-24, the district court lifted the condition of Mr. Geisen's probation banning him from employment in the nuclear industry. *See United States v. Geisen,* No. 3:06-CR-712, 2009 WL 4724265, at *1 (N.D. Ohio Dec. 2, 2009). *See also United States v. Geisen,* No. 3:06-CR-712, Transcript of Sentencing Hearing Before the Honorable David A. Katz, United States District Judge (May 1, 2008) (appended as Ex. C to Letter from Richard A. Hibey to the Licensing Board (June 24, 2008) (ADAMS Accession No. ML081910153)); Notice and Order (regarding Conference Call) (July 17, 2008) at 3 (unpublished).

[25] *United States v. Geisen,* No. 08-3655, 2010 WL 2774237 (6th Cir. July 15, 2010).

[26] Memorandum and Order (Summarizing Conference Call) (Nov. 3, 2008) (unpublished). The hearing was held December 8-12, 2008.

[27] *See* LBP-09-24, 70 NRC at 697, Table 1.

[28] *See id.* at at 698, Table 2.

[29] *See id.* at 699, Table 3.

both as to Mr. Geisen's state of mind at the time of the erroneous, incomplete, or misleading statements, and as to his involvement in and contribution to those statements.[30] The majority declined the Staff's invitation to use Mr. Geisen's criminal conviction to "collaterally estop" him from maintaining that he lacked the requisite "knowing" state of mind.

Judge Hawkens dissented from the majority's rulings.[31] He concluded that because of Mr. Geisen's criminal conviction, the NRC was required under the collateral estoppel doctrine to find that Mr. Geisen had knowingly provided the agency with materially incomplete and inaccurate information.[32] He also found that, regardless of whether collateral estoppel was applied, the Staff had demonstrated by a preponderance of the evidence that Mr. Geisen had the requisite knowledge that his statements were incomplete, misleading, and/or inaccurate.[33]

II. DISCUSSION

A. Standards Governing Petitions for Review

We may take discretionary review of a licensing board's initial decision.[34] In deciding whether to grant review, we give due weight to the existence of a substantial question with respect to the following considerations:

> (i) a finding of 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) the appeal raises a substantial and important question of law, policy, or discretion;
>
> (iv) the conduct of the proceeding involved a prejudicial procedural error; or
>
> (v) any other consideration we determine to be in the public interest.[35]

The Staff asserts that the Board made not only erroneous factual findings but also mistakes as to both substantive and procedural law. As discussed below, we agree that the Staff raises substantial questions as to factors (i), (ii), (iii), and (iv). We therefore grant the Staff's petition for review. But after considering the

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[30] *Id.* at 700-01.

[31] *Id.* at 809 (Dissenting Opinion).

[32] *Id.* at 809-23.

[33] *Id.* at 824-53. Judge Hawkens also considered the 5-year suspension reasonable, given the gravity of, and circumstances surrounding, Mr. Geisen's asserted offense. *Id.* at 853-56.

[34] 10 C.F.R. § 2.341(b)(4).

[35] *Id.*

Staff's arguments, we uphold the decision of the Board majority to overturn the Enforcement Order. While we find the factual questions close, as an appellate tribunal, our fact-finding capacity and role are limited to a record review, and our review of the record does not show that the majority's findings of fact are clearly erroneous. We also agree with the Board majority's key legal rulings, including its refusal to apply collateral estoppel.

Given that the issues in this case, factual and legal, have been sharply contested, and in view of the vigorous and thoughtful disagreement among the members of the Board, we explain our view of the case in some detail.

B. Analysis

1. Threshold Legal Issue: The Board's Assessment of Mr. Geisen's State of Mind

The majority offered a summary description of its approach to determining Mr. Geisen's state of mind. Because his state of mind is a critical issue in this proceeding and this appeal, we set forth the summary as follows:

> Fundamental to our decision today is the concept that . . . "knowledge" does not necessarily follow simply from previous exposure to individual facts. Instead, to have knowledge, an individual must have a current appreciation of those facts and of what those facts mean in the circumstances presented.
>
> In the circumstance of this case, it is not just the absorption of the key facts that is in issue. Beyond knowing the existence of those facts, to be found liable for a knowing misrepresentation Mr. Geisen had to know of their significance. Crucial in this respect was that Mr. Geisen knew the Davis-Besse plant had always had a problem with leaking flanges, and had a general understanding that inspections were made more difficult — but not, in his mind, impossible — by the geometry of the head and its access ports. He also, for entirely valid and understandable reasons, believed — mistakenly, along with many others — that the reactor vessel head had been cleaned after the inspection in 2000, and this influenced some of what he represented to the NRC.
>
> In sum, Mr. Geisen filtered incoming facts against this always limited, and sometimes mistaken, knowledge base, and was slow to recognize that the new facts that he did absorb heralded a new era of problems. But without such recognition, he did not attain the degree of "knowledge" sufficient to establish guilty misrepresentation — rather than innocent mistakenness fueled by disinformation coming from his co-workers and elsewhere within the company.
>
> Thus, the question before us is not whether Mr. Geisen could have done a better job or should have known that — or should have taken steps to determine whether — the information being provided to the NRC was inaccurate or incorrect. Rather, the question was whether the Staff has proven that he had actual knowledge, at the time

the submissions were made, that the information being provided was false and that he deliberately acted contrary to that knowledge.[36]

The Staff construes the majority's approach as establishing a "knowledge hierarchy" for determining a person's state of mind.[37] Pointing to various passages in the Board decision, the Staff also concludes that the Board has created a new "Five-Factor Test":

- The wrongdoer must be an expert in the particular matter at issue;[38]
- The wrongdoer must not be busy with other important matters during any relevant time period;[39]
- The matter at issue must be within the wrongdoer's job description and permanently assigned duties;[40]
- The wrongdoer must not only read written communications concerning the matter at issue, but must also act upon or otherwise respond positively to the communication in a way that conforms to the majority's "Knowledge Hierarchy";[41] and
- The wrongdoer must have knowledge of not only the content of any relevant document, but also its context and implications.[42]

The Staff asserts that this "new paradigm"[43] is far more difficult to satisfy than the "preponderance of the evidence" standard established under the Administrative Procedure Act.[44] Indeed, the Staff claims that this new standard "renders it nearly impossible to establish that an individual acted deliberately," and thereby would erode substantially the NRC's enforcement program.[45] According to the Staff, "even an admission of actual knowledge and deliberate action might not be enough to meet the 10 C.F.R. § 50.5 deliberate misconduct requirements [as construed by the majority] if, for example, evidence showed the individual was busy with other

[36] LBP-09-24, 70 NRC at 701.

[37] Staff Petition at 4-9.

[38] *Id.* at 4 (citing LBP-09-24, 70 NRC at 704, 731, 751, 781, 786).

[39] *Id.* (citing LBP-09-24, 70 NRC at 702-03, 729, 742, 752, 758, 759 n.147, 789 n.172, 792).

[40] *Id.* (citing LBP-09-24, 70 NRC at 693, 702-03, 731, 739, 752).

[41] *Id.* at 5 (citing LBP-09-24, 70 NRC at 707-09).

[42] *Id.* (citing LBP-09-24, 70 NRC at 701, 708-09, 729-30, 734, 770-71).

[43] *Id.*

[44] *Id.* at 4 (citing Final Rule: "Revisions to Procedures to Issue Orders; Deliberate Misconduct by Unlicensed Persons," 56 Fed. Reg. 40,664, 40,673 (Aug. 15, 1991)).

[45] *Id.* at 5.

important job matters or the pertinent matter was not within his job description."[46] Moreover, the Staff argues, this new standard would undermine the enforcement program's deterrent effect on people who otherwise might submit incomplete and/or inaccurate information to the NRC.[47]

The Staff's entire line of argument raises the key issue on which the majority and Chief Judge Hawkens differed: What constitutes "knowledge" for purposes of 10 C.F.R. § 50.5(a)(2)?[48] Because determinations of "knowledge" are factual by their very nature, the factors pertinent to such determinations in one proceeding are dictated largely by the facts and context of that case, and may be inappropriate in another proceeding. For this reason, we cannot accept the Staff's argument that the majority set forth a new "knowledge" test that would have precedential value in future enforcement adjudications.[49] Rather, we interpret the majority's statements simply as a detailed explanation of its reasoning in arriving at its state-of-mind findings in this particular case.

Moreover, because the facts of every enforcement case are unique, the method of a board's fact-finding likewise will have to be somewhat different in each proceeding, just as the Staff's own fact-finding and sanctions determinations are handled on a case-by-case basis.[50] The Staff's argument regarding a "new legal standard" disregards this reality and leads to the illogical conclusion that any board adjudicating an enforcement case necessarily establishes a new set of legal standards.[51]

Further, we agree with the majority that, for purposes of section 50.5, "knowledge" of a fact requires not only an awareness of that fact but also an understanding or recognition of its significance. We find support for this conclusion in analogous areas of both civil and criminal law. For instance, the Sixth Circuit offered the following description of the criminal law prohibiting fraudulent statements under 18 U.S.C. § 1001(a)(2) (barring "materially false, fictitious, or fraudulent

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[46] *Id.*

[47] *Id.* at 5-6 (citing Staff Ex. 1, NRC Enforcement Policy, at 4 (available in Staff Exhibits, Part 1, at 2, 6)).

[48] Section 50.5(a)(2) prohibits a person from contributing to the submission of information to the NRC that he knows was incomplete or inaccurate in some material respect. As Judge Hawkens succinctly put it in his Dissenting Opinion, "[t]he sole issue here — as in his criminal trial — is whether he *knew* the information was materially incomplete and inaccurate at the time it was submitted to the NRC." LBP-09-24, 70 NRC at 826 n.15).

[49] Board decisions carry no precedential weight, so even were the majority seeking to establish such a test here, the test would not be controlling in other proceedings. *See, e.g., Entergy Nuclear Operations, Inc.* (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 263 n.40 (2008); *Aharon Ben-Haim,* CLI-99-14, 49 NRC 361, 364 (1999).

[50] *See* Tr. at 2014-15, 2021, 2038 (Staff witness Kenneth G. O'Brien).

[51] Staff Petition at 6. *See also id.* at 5 ("new [legal] paradigm").

statement[s] or representation[s]" in matters within the federal government's jurisdiction):

> [A] false statement charge under § 1001, like a perjury charge, effectively demands an inquiry into the Defendant's state of mind and his intent to deceive at the time the testimony was given, and the entire focus of a perjury inquiry centers upon what the testifier knew and when he knew it, in order to establish[ ] beyond a reasonable doubt that he knew his testimony to be false when he gave it.[52]

Similarly, concerning the more general subject of criminal guilt, the Supreme Court has observed that the words "'knowledge' and 'knowingly' are normally associated with awareness, understanding, or consciousness."[53] Along the same lines, the Second Circuit has held that knowledge may suffice for criminal culpability "if extensive enough to attribute to the knower a 'guilty mind,' or knowledge that he or she is performing a wrongful act."[54] Likewise, courts have held that the civil law concept of "assumption of risk" requires not merely general knowledge of a risk but also "that the risk assumed be specifically known, understood and appreciated."[55]

The Staff further complains that "the Majority applied its new standards for proving knowledge after the close of the record, without notice, without providing the Staff an opportunity to present evidence focusing on these standards, and

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[52] *United States v. Ahmed,* 472 F.3d 427, 433 (6th Cir. 2006) (internal quotation marks and citation omitted, second alteration in original), *cert. denied,* 551 U.S. 1132 (2007). *See also United States v. Gonsalves,* 435 F.3d 64, 72 (1st Cir. 2006) ("Willfulness . . . means nothing more in this context than that the *defendant knew that his statement was false when he made it* or . . . consciously disregarded or averted his eyes from its likely falsity." (emphasis added; citation omitted)); *United States v. Curran,* 20 F.3d 560, 567 (3d Cir. 1994) ("To convict a person accused of making a false statement, the government must prove not only that the statement was false, but that *the accused knew it to be false.*" (emphasis added)).

Some circumstances surrounding a person's false statement may be "so obvious that knowledge of its character fairly may be attributed to him." *United States v. Figueroa,* 720 F.2d 1239, 1246 (11th Cir. 1983). *See, e.g., United States v. Picciandra,* 788 F.2d 39, 46 (1st Cir.) ("Any reasonable person would have realized that in today's society the bizarre bearing of shopping bags filled with large sums of cash signaled some form of illegal activity"), *cert. denied,* 479 U.S. 847 (1986). *See also United States v. Burgos,* 94 F.3d 849, 869 (4th Cir. 1996); *Williams v. United States,* 379 F.2d 719, 723 (5th Cir. 1967) (concerning contributory negligence where the risks are "patently obvious"). But, as the split Board decision shows, this proceeding does not present so "obvious" a situation.

[53] *Arthur Andersen LLP v. United States,* 544 U.S. 696, 705 (2005).

[54] *United States v. Figueroa,* 165 F.3d 111, 115-16 (2d Cir. 1998).

[55] *Lambert v. Will Bros. Co.,* 596 F.2d 799, 802 (8th Cir. 1979) (Arkansas law). *Accord Bonds v. Snapper Power Equipment Co.,* 935 F.2d 985, 988 (8th Cir. 1991) (same); *Kennedy v. U.S. Construction Co.,* 545 F.2d 81, 84 n.1 (8th Cir. 1976) (same); *Sun Oil Co. v. Pierce,* 224 F.2d 580, 585 (5th Cir. 1955) (Texas law).

then relied heavily on these standards in rendering its decision."[56] The Staff points to federal case law for the proposition that, "'when an adjudicating agency retroactively applies a new legal standard that significantly alters the rules of the game, the agency is obliged to give litigants proper notice and a meaningful opportunity to adjust.'"[57] But, as we explained above, the Board majority applied no "new legal standard" here. Rather, it merely examined the particular facts of this case (and their full context) thoroughly. Indeed, had the majority not explained how it had arrived at its findings of fact, it would have failed to comply with its responsibilities under the Administrative Procedure Act to issue a "reasoned decision."[58]

Last, the Staff asserts that even if the new "Five-Factor Test" is appropriate, the majority nonetheless applied it inconsistently by "failing to properly consider" the Staff's evidence.[59] Although couched in legal terms, this argument is at bottom a factual challenge to the way the majority weighed and balanced the conflicting evidence in this proceeding. We consider and reject each of the Staff's specific factual challenges below. We add only that the majority's decision to give greater weight to Mr. Geisen's evidence does not mean that the majority improperly failed to consider the Staff's evidence. Indeed, the majority cited and addressed the Staff's exhibits and testimony repeatedly throughout the fact-finding section of LBP-09-24.[60]

2. Factual Challenges

a. The Burden to Show "Clear Error"

The Staff claims that four significant findings of fact made by the majority were "clearly erroneous." To show clear error, the Staff must demonstrate that the majority's findings are "not even plausible in light of the record viewed in its

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[56] Staff Petition at 6.

[57] *Id.* (quoting *Puerto Rico Aqueduct & Sewer Authority v. Environmental Protection Agency,* 35 F.3d 600, 607 (1st Cir. 1994), and citing *Alabama v. Shalala,* 124 F. Supp. 2d 1250, 1263-64 (M.D. Ala. 2000)).

[58] *See Allentown Mack Sales & Service, Inc. v. National Labor Relations Board,* 522 U.S. 359, 374 (1998) ("The Administrative Procedure Act, which governs the proceedings of administrative agencies and related judicial review, establishes a scheme of 'reasoned decisionmaking.'"). *See generally Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-17, 52 NRC 79, 83 (2000) (referring to a petitioner's right to a "reasoned adjudicatory decision").

[59] Staff Petition at 6. *See generally id.* at 6-9.

[60] *See* LBP-09-24, 70 NRC at 726-76, which includes over 100 citations to or quotations from Staff exhibits, and still more citations to Staff witnesses' testimony, Staff pleadings, and the Enforcement Order.

entirety."[61] This is a difficult standard to meet. The Staff's brief did not cite an example — nor have we found one — where the Commission has overturned a Board finding of fact due to "clear error."

In each instance, the record does contain some evidence that supports the Staff's point of view. Indeed, we have no doubt that based on the record, the Board permissibly could have inferred that Mr. Geisen knowingly misled the NRC, and that the outcome of this proceeding plausibly could have been different. But this is not a reason to reverse the majority.[62] In as hard-fought a case as this, we would not expect the record to support one party only. The fact that the majority accorded greater weight to one party's evidence than to the other's is not a basis for overturning the initial decision.

The Board had before it the totality of the evidence — including the testimony from a 5-day hearing, hundreds of pages of documentary evidence, and transcripts from investigative interviews and a criminal trial. We will not lightly overturn the majority's ruling, particularly where much of that evidence is subject to interpretation.[63] In addition, findings of fact that turn — as they do here — on witness credibility receive our highest deference.[64] A board's findings regarding a particular witness's knowledge or state of mind depend, as a general rule, largely

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[61] *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) (quoting *Kenneth G. Pierce* (Shorewood, Illinois), CLI-95-6, 41 NRC 381, 382 (1995) (in turn quoting *Anderson v. Bessemer City,* 470 U.S. 564, 573-76 (1985))).

[62] *See generally Pierce,* CLI-95-6, 41 NRC at 382 ("The Staff's petition . . . demonstrates only that the record evidence in this case may be understood to support a view sharply different from that of the Board . . . . [but] does not show that the Board's own view of the evidence was 'clearly erroneous.'").

[63] For example, the Staff cites a portion of Mr. Geisen's testimony to show that Mr. Geisen understood the requirements of Bulletin 2001-01. *See* Staff Petition at 21 (citing Tr. at 1820, 1823-28). It is unclear from the exchange at the evidentiary hearing, however, whether Mr. Geisen was testifying as to what he understood in the Fall of 2001 or what he understood during the hearing while reading that same Bulletin. *See* discussion at text associated with notes 106-107, *infra.*

[64] *See Watts Bar,* CLI-04-24, 60 NRC at 189 ("Our deference is particularly great where 'the Board bases its findings of fact in significant part on the credibility of the witnesses.'" (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 26 (2003))). *See also PFS,* CLI-03-8, 58 NRC at 27, 29, 36; *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 386 & n.6 (2001), *petition for review denied, Orange County v. NRC,* 47 Fed. App'x 1, 2002 WL 31098379 (D.C. Cir. 2002); *Ben-Haim,* CLI-99-14, 49 NRC at 364 & n.2.

on that witness's credibility.[65] In this matter, the majority relied extensively on Mr. Geisen's demeanor and credibility as a witness.[66]

This enforcement action turns on Mr. Geisen's state of mind: whether he knew that the information presented to the NRC in response to Bulletin 2001-01 was false. The parties stipulated that certain material information Mr. Geisen provided to the NRC during two presentations to the NRC, a conference call, and in three serial letters described in the Enforcement Order was false.[67] Although the investigation into this matter included interviews with over thirty Davis-Besse employees, the majority found that there was no direct evidence — for example, witness testimony — presented to demonstrate that Mr. Geisen knew more than he asserted that he did.[68]

Instead, the success of Staff's case depended upon whether the Staff could convince the Board that knowledge permissibly could be inferred through circumstantial evidence. First, the Staff demonstrated that Mr. Geisen had admitted that he was aware of certain facts concerning the condition of the reactor vessel head. Second, the Staff demonstrated that Mr. Geisen had been on the recipient list of documents and e-mails that discussed the reactor head and inspections, so that the Board could infer that Mr. Geisen "knew" the information contained in those documents. Ultimately, the Board's decision came down to weighing Mr. Geisen's testimony that he did not realize the information provided to the NRC was false (as well as circumstances making Mr. Geisen's version plausible), against the Staff's circumstantial evidence that he must have recognized its falsity when he presented it or concurred in its submission. The Board majority believed Mr. Geisen; Judge Hawkens did not.

The majority largely accepted Mr. Geisen's explanations of why he did not appreciate that the information provided to the NRC was false when he concurred in its presentation — either because he had relied on other people to verify the

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[65] *Cf. Metropolitan Edison Co.* (Three Mile Island Nuclear Station, Unit 1), LBP-85-30, 22 NRC 332, 396 (1985) ("The Board concludes that Mr. Herbein's testimony that he did not know about the early high incore temperature readings is . . . not credible, in light of his two earlier statements"); *Inquiry into Three Mile Island Unit 2 Leak Rate Data Falsification,* LBP-87-15, 25 NRC 671, 783 (Recommended Decision 1987) ("While we would not expect the [control room operators] to recall details of such discussions, we find not credible their professed inability to remember anything about the knowledge of their fellow [control room operators], particularly in light of the very striking pattern of their joint involvement in manipulation that emerges from the records analysis.").

[66] *See, e.g.,* LBP-09-24, 70 NRC at 700, 703, 743, 748 n.133, 750 n.138, 773, 785-86 n.169.

[67] *See* NRC Staff Hearing Submissions, Attachment 2 (Stipulated Facts) (Dec. 3, 2008). *See generally* Enforcement Order.

[68] *See* LBP-09-24, 70 NRC at 705.

accuracy of certain information;[69] because he had focused only on his own area of responsibility in verifying the technical accuracy of the correspondence sent to NRC;[70] or because he had focused his attention on responding to the Bulletin's request for information regarding future rather than past inspections.[71] We observe that none of these circumstances necessarily "proves" that Mr. Geisen did not know that the information was false. But the majority found Mr. Geisen credible on this point, leading to its ultimate fact finding that Mr. Geisen did not know at the time that his representations were false or misleading.

Although recognizing our highly deferential standard of review for Board findings of fact, the Staff argues that the majority's findings with respect to these circumstances are so contrary to the weight of the evidence as to amount to mere rationalizations. The Staff directs our attention to a number of instances where the record supported findings different from those of the majority, or where the Staff claims the majority's findings lack record support. We consider each of these in turn below.

b. Specific Claims of Error

(1) WHETHER MR. GEISEN KNEW THE BULLETIN'S REQUIREMENTS AND INSPECTION LIMITATIONS

The Staff challenges the majority's finding that Mr. Geisen did not know that two important factors prevented 100% visual inspections of the reactor vessel head at Davis-Besse during the prior three refueling outages.[72] The majority accepted Mr. Geisen's testimony that (1) he did not realize that the inspection method Davis-Besse had used in the past precluded viewing the topmost nozzles on the reactor vessel head, and (2) he did not know boron deposits on the reactor head also interfered with the inspections.[73]

The Board's findings of fact on the inspection limitations go to the heart of this enforcement action. To persuade the NRC not to shut down the reactor prior to its next scheduled refueling outage, management at Davis-Besse sought to show that, at their plant, there was no danger posed by the circumferential nozzle

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[69] For example, Mr. Geisen apparently relied on Andrew Siemaszko, who had performed the 2000 inspection and cleaning and who was assigned the task of determining which nozzles could be seen on the videotapes from past inspections, and also on Prasoon Goyal, senior mechanical engineer for Design Basis Engineering. *See id.* at 751. *See also id.* at 764 (citing Tr. at 1725) ("[T]here is no evidence that anyone else on the FENOC team conveyed to Mr. Geisen during the course of preparing slides and planning the presentation that the information was incorrect.")).

[70] *See id.* at 730 (citing Tr. at 1640)).

[71] *See id.* at 750 (citing Tr. at 1826-27)).

[72] Staff Petition at 19-21.

[73] LBP-09-24, 70 NRC at 745-46, 748, 781.

cracking seen at other plants. To that end, FENOC sought in its responses to Bulletin 2001-01 to show that the CRDM nozzles had shown no sign of cracking in prior inspections.

It is undisputed that it was impossible to view each and every nozzle that penetrated the reactor head during the inspections done during certain refueling outages.[74] At the time, Davis-Besse's employees conducted these inspections by inserting a camera mounted on a rigid pole through "mouseholes" or "weep holes"[75] in the reactor service structure, in order to view the reactor head and penetrating nozzles ("camera-on-a-stick" method).[76] These inspections frequently were videotaped.[77] The curvature of the head, however, made it impossible to view the topmost nozzles when using the camera-on-a-stick method,[78] which was the method used during RFO 10, in 1996; RFO 11, in 1998; and RFO 12, in 2000.[79] In addition, boron deposits accumulating over the years further blocked the camera from capturing all or parts of the nozzles (although the head ostensibly was cleaned through either mechanical means or with water after each inspection).[80]

FENOC took several steps to overcome these inspection limitations. There had been a request, pending since 1994, to cut additional access holes in the reactor service structure in order to better maneuver the camera, although this plan was never carried out.[81] Ultimately, FENOC purchased for use in the 2002 inspection a camera mounted on a robotic rover that would be able to "crawl" over the rounded head to see the topmost nozzles.[82] In addition, because mechanical methods to remove boron deposits had not been successful after RFO 10 and RFO 11, a work order was issued to use demineralized water to clean the head after RFO 12 in 2000.[83]

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[74] *See* Stipulated Facts at 4, 7 (referring specifically to Refueling Outages 10 (1996) (RFO 10), 11 (1998) (RFO 11), and 12 (2000) (RFO 12)).

[75] "Mouseholes" are $5'' \times 7''$ cutouts in the service structure that provide access to both the outside of the reactor vessel head and to the area between the head and the insulation. LBP-09-24, 70 NRC at 691.

[76] *Id.* at 692.

[77] *Id.*

[78] Tr. at 854-55, 901 (Staff witness Melvin Holmberg).

[79] LBP-09-24, 70 NRC at 692-93. *See also* Tr. at 866-67 (Staff witness Melvin Holmberg).

[80] *See* LBP-09-24, 70 NRC at 731, 732-33; Tr. at 901, 1565.

[81] *See* LBP-09-24, 70 NRC at 830.

[82] Tr. at 1614-16.

[83] *See* Staff Ex. 20, Work Order at 1-13 (available in Staff Exhibits, Part 1, at 378-90). In actuality, the head was not completely cleaned as "boric acid crystal deposits of considerable depth" were left on the center top area of the head. *See* Staff Ex. 44, Letter from Gregory A. Gibbs, Piedmont Management & Technical Services, Inc., to Mark McLaughlin, Davis-Besse Nuclear Power Station (Sept. 14, 2001) at 1 (available in Staff Exhibits, Part 2, at 121).

FENOC's first response to the NRC's 2001 Bulletin seeking information on vessel head integrity was Serial Letter 2731, dated September 4, 2001, where FENOC stated that the 1998 and 2000 inspections showed flange leakage but no nozzle leakage.[84] On October 11, 2001, various managers from FENOC, including Mr. Geisen, met with the Commissioners' technical assistants to present the company's argument that the reactor could safely operate until scheduled RFO 13, in March 2002. Slides presented at this meeting indicated that inspection tapes from the 1998 and 2000 refueling outages had been reviewed nozzle-by-nozzle,[85] despite the fact that the review (performed by another FENOC employee, Andrew Siemaszko) had not yet been completed. The slides stated that the reviews confirmed the absence of "popcorn" type boron deposits that would indicate leaking nozzles.[86]

Subsequent to the October 11 meeting, Mr. Siemaszko completed his review, which revealed that extensive boron deposits had blocked the camera from viewing a large number of nozzles during both inspections. Shortly thereafter, FENOC supplemented its Bulletin response with Serial Letter 2735, which acknowledged that by 1998, nineteen nozzles could not be seen in the inspections, and by 2000, twenty-four nozzles were obscured by boric acid deposits.[87] Serial Letter 2735 argued that, even disregarding the 1998 and 2000 inspections and starting with the 1996 inspection, the crack-growth-rate analysis showed that the reactor could operate safely until the 2002 refueling outage.[88]

It is undisputed that Mr. Geisen did not take part personally in any of the relevant past inspections (1996, 1998 and 2000). Mr. Geisen testified that, while he knew the "camera-on-a-stick" method FENOC had used in the past presented difficulties, he believed that a reliable inspection using this method was not impossible.[89]

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[84] *See* Stipulated Facts at 2-3.

[85] *See* Staff Ex. 55, FENOC Slides Presented at October 11, 2001 meeting with Commissioners' technical assistants, at 6-7 (available in Staff Exhibits, Part 2, at 163, 169-70).

[86] *See id.* at 7 (available in Staff Exhibits, Part 2, at 170).

[87] *See* Staff Ex. 11, Serial Letter 2735 (Oct. 17, 2001) at 2-3 (available in Staff Exhibits, Part 1, at 136, 142-43). Serial Letter 2735 claimed that the boric acid was "clearly" from flange leakage, not from nozzle leakage. *Id.* at 3 (available in Staff Exhibits, Part 1, at 143). According to the Stipulated Facts, Serial Letter 2735 understated the number of nozzles that were not viewed in the 1996, 1998, and 2000 inspections. *See* Stipulated Facts at 6-7.

[88] *See* Staff Ex. 11, Serial Letter 2735 at 1 (available in Staff Exhibits, Part 1, at 141) ("Accordingly, using the end of the outage in 1996 as the postulated worst-case time for an axial crack to reach a through-wall condition, the projected time for the crack to reach its critical through-wall circumferential size was determined based on the results from a[ ] Framatome ANP assessment. This [reactor vessel] Head Nozzle and Weld Safety Assessment demonstrates the postulated crack will take approximately 7.5 years to manifest into an ASME Code allowable crack size.").

[89] *See* Tr. at 1616; LBP-09-24, 70 NRC at 745.

The Staff objects to the majority's finding "that Mr. Geisen was only aware that the [camera-on-a-stick] inspection technique 'had its difficulties, but he was not aware that it physically precluded the ability to view all of the nozzles.'"[90] The Staff argues that Mr. Geisen "knew" that past inspections were inadequate because he knew that there was an outstanding request to cut additional holes in the service structure to facilitate inspections and cleaning. At the hearing, Mr. Geisen was asked repeatedly about this modification request. The Staff cites this exchange:

> Question: So going back again, the modification — you knew the modification [request] had been in place since 1994. Correct?
>
> . . . .
>
> Mr. Geisen: Correct.
>
> Question: To cut access holes. And you knew the access holes were being requested in that modification because they couldn't get to the entire head using a camera on a stick through a weep hole. Isn't that correct?
>
> Mr. Geisen: Correct.[91]

The majority, however, addressed this very passage, pointing out that in the same line of questioning, Mr. Geisen had stated that he did not know that the entire head could not be reached without the modification:[92]

> [Question:] I'm talking about a modification that's been in place since 1994. And I'm asking whether that modification, which has been in place since 1994, was there because you couldn't access the entire head through the weep holes. And you knew that, didn't you?
>
> [Mr. Geisen:] No.[93]

Earlier in the same day of testimony, Mr. Geisen stated that he thought the requested modification would make head cleaning and inspection easier, but not that the modification was necessary for those activities:

> [Question:] And were you, aware that [the requested modifications] were necessary because you could not clean the head unless you had those access holes?
>
> [Mr. Geisen:] No.

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[90] Staff Petition at 19 (quoting LBP-09-24, 70 NRC at 745).

[91] *Id.* (quoting Tr. at 1958-59).

[92] *See* LBP-09-24, 70 NRC at 746-47.

[93] Tr. at 1958.

> [Question:] So that was new information to you in this email[?]
>
> [Mr. Geisen:] I didn't view it as a requirement. I viewed it as Mr. Siemaszko's requesting those to make it easier to do the viewing and cleaning.[94]

Continuing with the same line of questioning, Staff counsel asked:

> [Question:] And [Bulletin 2001-01] was looking for inspections that were sufficient to verify whether those nozzle indications were present, correct?
>
> [Mr. Geisen:] Correct.
>
> [Question:] And this would require an inspection of the entire head. Is that correct?
>
> [Mr. Geisen:] That is correct.
>
> [Question:] So the fact that you could not access the head through these mouse holes sufficiently to clean it was a warning, wasn't it, that there were impediments to having that kind of complete inspection?
>
> [Mr. Geisen:] I did not take that statement that way when I read it.[95]

The majority also cited an August 17, 2001 e-mail message that, in its view, would have led Mr. Geisen to believe that it was not impossible to conduct a complete inspection. Mr. Geisen was sent a copy of an e-mail from the senior mechanical engineer for Design Basis Engineering, Prasoon Goyal (who had conducted the 1996 inspection and cleaning), indicating that the 1998 inspection was a "good" inspection.[96]

Although the passages of testimony that Staff cites in its brief[97] suggest that Mr. Geisen's testimony on the subject was not entirely "uncontroverted," as the majority put it,[98] the majority nonetheless found that Mr. Geisen repeatedly testified that he did not know that the camera-on-a-stick method rendered all past inspections incomplete. In light of his testimony to that effect, we find plausible the majority's finding that Mr. Geisen did not realize that past inspections were unreliable per se.

The Staff also argues that Mr. Geisen must have known that past inspections were inadequate, because he testified that the reason he procured a rover (or

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[94] Tr. at 1872.

[95] Tr. at 1873.

[96] LBP-09-24, 70 NRC at 745 (citing Staff Ex. 39); Staff Ex. 39, E-mail from Prasoon K. Goyal to sfyftch@framatech.com (Aug. 17, 2001) (available in Staff Exhibits, Part 2, at 111) ("Is it possible to go back to 1998 that is when a good head exam was done with no nozzle leakage[ ] (meaning not taking any credit for 2000 inspection)[?]")).

[97] *See* text associated with notes 91 and 93, *supra.*

[98] LBP-09-24, 70 NRC at 747.

"crawler") for RFO 13, in 2002, was that he "didn't view the camera on a stick as even a viable option anymore."[99] The majority, however, interpreted Mr. Geisen's decision to procure the rover as simply a choice to use newer, superior technology for inspections.[100] Because (the majority observed) a rover's magnetic wheels would not work unless the head were clean, the majority also viewed Mr. Geisen's decision to procure a rover as evidence that Mr. Geisen believed that the head had been cleaned successfully after the 2000 inspection.[101] We find that the majority's interpretation of Mr. Geisen's actions with respect to procuring the rover was plausible. Consequently, Mr. Geisen's acquisition of a rover does not undermine the majority's finding that he did not know the extent of the limits of the past inspections.

The Staff next challenges the majority's finding that Mr. Geisen thought that the focus of Bulletin 2001-01 was on how *future* inspections should be conducted to deal with the problem of potential nozzle leakage.[102] The Staff argues that Mr. Geisen knew the Bulletin sought specific information concerning *past* inspections. The record shows that Mr. Geisen's testimony supports the majority's finding.[103] The majority also cited testimony by the Staff's witness that would indicate that the Bulletin reflected a strong interest in how licensees would conduct future

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[99] Staff Petition at 20 n.51 (quoting Tr. at 1880). The cited portion of the transcript reads as follows:

> [Question:] So you knew though that using a camera on a stick you would have had a problem with an inspection[?]
>
> [Mr. Geisen:] Correct. But even if we were doing a visual inspection in 2002, we'd already made plans to do it using our crawler. So I didn't view the camera on a stick as even a viable option anymore.

Tr. at 1879-80.

[100] LBP-09-24, 70 NRC at 747-48 & n.131.

[101] *Id.*

[102] Staff Petition at 19 (citing LBP-09-24, 70 NRC at 703-04, 749-51). The majority found that Mr. Geisen understood that the purpose of the additional Bulletin responses was not to prove that the past inspections were adequate, but to identify shortcomings in past inspections with a view to "providing a plan to the NRC as to how future inspections would meet future regulatory requirements." LBP-09-24, 70 NRC at 704. *See also id.* at 749-50 (citing Mr. Geisen's testimony at Tr. at 1826-27).

[103] *See* Tr. at 1828-29 ("[Mr. Geisen:] [T]he section you are pulling out on page 4, as I read through that whole paragraph, I take that as identifying where there is an identified industry shortfall in how we do inspections. Now, did I then take that industry-identified shortfall and go back . . . and apply that as new criteria that I should have been applying to inspections I have done in the past? No, I did not do that. I took it as front information, and then when I got to the part where it says, 'The . . . addressees,' on page 11, 'will provide the following information,' the intent was to provide that information to the best ability, not to go back and revise inspection criteria of inspections that were done two to four year[s] earlier."). *See also* Tr. at 1824-27.

inspections.[104] In contrast, the only evidence the Staff cites[105] to contradict Mr. Geisen's claim that he thought future inspections to be the Bulletin's main focus consists of portions of Mr. Geisen's testimony where he either seems to be stating his understanding of the Bulletin much later (at the time of the NRC hearing),[106] or where he states that he understood the Bulletin to make a distinction between future and past inspections.[107] Such statements are not enough to convince us that the majority made a clear error in its finding on this issue.

(2) WHETHER MR. GEISEN VIEWED VIDEOTAPES OF PAST INSPECTIONS IN EARLY OCTOBER 2001

The Staff claims that the majority erred in finding that Mr. Geisen had not seen inspection videotapes "in running fashion" in early October 2001 because Mr. Geisen admitted seeing "portions" of the tapes.[108] As discussed below, it is clear from the record that Mr. Geisen did view portions of the inspection videos at issue, and the majority acknowledges this.[109] In this regard, the Staff articulates no error.

The Staff's true concern appears to focus on the majority's use of the term "in running fashion" to describe how the inspection videotapes had been reviewed. The majority used this term at various points in its decision[110] but apparently intended "in running fashion" not to mean merely viewing a moving video image, but viewing the videos in "the manner in which the Staff played the tapes for

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[104] *See* LBP-09-24, 70 NRC at 694 (citing Tr. at 1205 (testimony of Staff witness Dr. Hiser)). The cited portion reads:

> [T]he . . . overall goal [of the Bulletin] was to determine the status of each plant. We . . . did not have sufficient knowledge in terms of the inspections that licensees had implemented at previous outages before the Bulletin was issued. . . . [S]o . . . we didn't know if those inspections were adequate to address the concerns of the Bulletin. The Bulletin also then gathered information about future inspection plans by licensees.

Tr. at 1205. *See also* LBP-09-24, 70 NRC at 695 (citing Tr. at 1254) (Staff witness Dr. Hiser). The cited portion reads:

> [T]he purpose for gathering information . . . . wasn't so much to force actions by licensees, but [to] let them know . . . what appropriate actions were, and enable them to demonstrate that their prior actions met the bulletin['s] . . . expectations, or to give them the opportunity to implement inspections, in the future, that met the expectations of the bulletin.

Tr. at 1254.

[105] Staff Petition at 20-21.

[106] Tr. at 1820, 1826-27.

[107] Tr. at 1878.

[108] Staff Petition at 21-22.

[109] LBP-09-24, 70 NRC at 760.

[110] *Id.* at 760, 784, 790.

the Board during the evidentiary hearing."[111] The majority, in fact, acknowledged that Mr. Geisen had seen "portions of the past inspection videotapes."[112]

The majority found that the first time Mr. Geisen saw the inspection videos was sometime between October 3 and October 11, 2001, when Mr. Geisen met with Andrew Siemaszko concerning an assignment Mr. Siemaszko had been given relating to the Bulletin response.[113] Mr. Siemaszko was to review the tapes of the previous inspections and create a table showing which nozzles could be confirmed not to be cracked. During the meeting with Mr. Siemaszko, Mr. Geisen either looked at portions of videotapes of the inspections, or at still shots taken from digitized versions of the tapes that Mr. Siemaszko had made in order to facilitate his review. Mr. Geisen testified at the hearing that, at this meeting, Mr. Siemaszko had shown him still shots to demonstrate the criteria he was using to check each nozzle:

> [Mr. Geisen:] I swung by [Mr. Siemaszko's] desk and asked him how he's doing and that's when he informed me that he initially I guess attempted to do the frame by frame looking at videotape and that wasn't working out very well because every time he paused it, or whatever, you got a disturbance in the picture. It didn't pause well or you get lines or whatever. So he had transferred stuff over or was having the Training Department copy all the VHS tapes over to CD format, a digital format so that he could review them on his computer and then he could just with the space key or the up and down arrow key go digital frame by frame and then they came up clear.[114]

The testimony at the hearing supported the majority's view that Mr. Geisen saw only brief portions of the inspection videos:

> [Question:] Did there ever come a time during the [1-hour meeting with Mr. Siemaszko] that he hit play and let the tape roll for you so you could watch it the way we watched it the other day during this hearing?
>
> [Mr. Geisen:] No. The real focus was he was — the discussion went more along the lines of not here's the video, but here's the still frame and this is the methodology

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[111] *Id.* at 760. The transcript shows that the Board spent a fair amount of time on the first day of the hearing reviewing inspection tapes, with Staff witness Melvin Holmberg describing what can be seen on the tapes. *See* Tr. at 877-926.

[112] LBP-09-24, 70 NRC at 760 (emphasis omitted).

[113] *Id.* at 759-60. *See also id.* at 743 (noting that another engineering department held the inspection tapes and that "no evidence exists to establish any physical connection between Mr. Geisen and any reactor vessel head inspection videotapes until mid-October of 2001") (emphasis omitted).

[114] Tr. at 694-95.

> that I'm using. Because I was really asking about the methodology, what was his acceptance criteria, what was the methodology he was using.[115]

The Staff notes that the majority acknowledged that Mr. Geisen's actions would be "tainted" if he saw videos "in running fashion."[116] It then cites portions of the transcript of an Office of Investigations interview with Mr. Geisen that took place in October 2002, where Mr. Geisen stated that he had looked at some "portions" of the tapes sometime in October 2001.[117] But the Staff seemingly does not recognize, or does not acknowledge, that the majority decision uses the term "in running fashion" to mean more than simply that the images were moving. Further, even if the majority meant "in running fashion" to refer to *any* moving image, the Staff does not explain what difference this "error" of fact would make to the outcome of this proceeding.

Possibly, the Staff is echoing Judge Hawkens's observation that Mr. Geisen likely "reviewed closely all three inspection videos" immediately after his meeting with Mr. Siemaszko and realized that the inspections were more limited in scope than the information submitted to the NRC would reveal.[118] In the sections of the Office of Investigations interview that the Staff cites, however, Mr. Geisen only states that he saw "portions" of the tapes.[119] The Staff offers no evidence showing that Mr. Geisen performed the "careful" review that Judge Hawkens suggests he might have done.

Nothing in the Staff Petition contradicts the majority's interpretation, nor does it persuade us that the majority's finding on this point would make a difference in the outcome of the proceeding. Therefore, we find no clear error in the majority's statements that Mr. Geisen did not view the inspection videotapes "in running fashion" at the beginning of October 2001.

(3) WHETHER MR. GEISEN KNEW HE WAS RESPONSIBLE FOR THE SERIAL LETTERS' TECHNICAL ACCURACY

The Staff argues that the majority erred in finding that Mr. Geisen was "specifically not 'the FENOC manager responsible for ensuring the completeness and accuracy' of the content in Serial Letter 2731," and in finding that his sole role in the review process was to determine whether the reviewed documents

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[115] Tr. at 1697.

[116] Staff Petition at 21 n.54 (citing LBP-09-24, 70 NRC at 790-91).

[117] *Id.* at 22-23 (citing Staff Ex. 79, Office of Investigations Interview (Oct. 29, 2002) at 108-09, 144-45 (ADAMS Accession No. ML100480577).

[118] *See* LBP-09-24, 70 NRC at 838 (Dissenting Opinion). The majority opinion responds to this comment, which it calls "speculation." *Id.* at 790.

[119] *See, e.g.,* Staff Ex. 79, at 61, 108-09, 156.

were inconsistent with his own department's knowledge or policies.[120] The Staff argues that Mr. Geisen "knew he was responsible for the Technical Accuracy of the Serial Letters."[121] The Staff claims that the majority's finding contradicts both the plain language of the "Green Sheet"[122] and Mr. Geisen's own testimony.[123]

Apparently, the Staff's dispute is not so much with the majority's finding that Mr. Geisen was not the manager in charge of responding to the Bulletin, as it is with the significance that the majority attributed to that finding. The Staff argues that the majority made a legal ruling that a person cannot be held responsible for knowingly concurring in materially incomplete and inaccurate representations as long as he can point to someone more directly responsible for the representations.[124] But the majority made no such ruling. Rather, the majority found that Mr. Geisen did not know the truth because of the manner in which he carried out his duties with respect to the review.

The majority's finding has support in the record.[125] Mr. Geisen testified that he did not understand that he was personally responsible for verifying the accuracy of every technical representation in the Serial Letters:

> [Question:] During the course of the litigation of this case, I take it, you have read the back of the green sheet and what it tells signatories that [sic] their responsibilities are, correct?
>
> [Mr. Geisen:] Correct.
>
> [Question:] And one of the responsibilities for a manager is to verify the technical accuracy, correct?
>
> [Mr. Geisen:] Correct.

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[120] Staff Petition at 23 (quoting LBP-09-24, 70 NRC at 702, and citing *id.* at 697, 730).

[121] *Id.*

[122] *Id.* (citing Staff Ex. 10, FENOC, "NRC Letters — Review and Approval Report (Serial No. 2731") at 3 (available in Staff Exhibits, Part 1, at 131, 135)). The "Green Sheet" is the cover page to a draft document, which was circulated as part of the internal review and approval process employed by FENOC at Davis-Besse. *See* Tr. at 1638-43.

[123] Staff Petition at 23 (citing Tr. at 1902).

[124] The Staff describes the majority's ruling as finding that "because Mr. Geisen was not the responsible manager, he was not culpable for the materially incomplete and inaccurate representations contained in Serial Letter 2731." *Id.* According to the Staff, the majority held that, even if Mr. Geisen knew Serial Letter 2731 contained false statements when he signed it, the NRC could still not "hold him accountable for this knowledge because another manager may have had greater responsibility" and that "the NRC could never hold a knowledgeable individual accountable for an inaccurate and incomplete document as long as the individual could [point to] someone with greater responsibility." *Id.* at 23-24.

[125] *See* LBP-09-24, 70 NRC at 730 (citing Tr. 1639-40).

> [Question:] At the time that you signed the green sheet, had you gotten any training in what your responsibility was?
>
> [Mr. Geisen:] No. I believed when I signed it I was — I was doing a good review. I don't believe that's the case now, but I believed at the time I was doing a good review.[126]

The majority found Mr. Geisen's testimony credible. The majority observed: "without any evidence directly linking Mr. Geisen to the development of Serial Letter 2731, we cannot reasonably attribute to Mr. Geisen more knowledge than [that of] the engineers, supervisor, and manager directly responsible for the work in question who had all previously signed the Green Sheet."[127]

Given the discussion in the record on this point, we do not find clear error in the majority's observations about how Mr. Geisen viewed his role.

(4) WHETHER MR. GEISEN KNEW HIS STATEMENTS TO THE COMMISSIONERS' TECHNICAL ASSISTANTS WERE INACCURATE

The Staff argues that Mr. Geisen knew that statements made during an October 11, 2001 briefing and slide presentation to the Commissioners' technical assistants were materially inaccurate.[128] The majority found that Mr. Geisen believed he was being truthful when he presented slides indicating that the nozzles had been checked for the popcorn-like deposits and that there was no evidence of leakage.[129] As discussed below, we do not find the majority's ruling clearly erroneous.

According to the stipulated facts, Mr. Geisen and other FENOC managers met with the Commissioners' assistants in October 2001 to present a safety argument for allowing Davis-Besse to continue operations until its next scheduled refueling outage in March 2002.[130] In attendance were FENOC employees Guy Campbell, Site Vice President of Davis-Besse; Stephen Moffitt, Technical Services Director at Davis-Besse; David Lockwood, FENOC's Director of Regulatory Affairs; and Mr. Geisen.[131] A slide presentation was prepared the night before the meeting by these employees as well as Gerry Wolf, also with FENOC's Regulatory Affairs office, and Ken Byrd, an engineer assigned to manage the creation of the crack-growth model.[132]

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[126] Tr. at 1641-42.

[127] LBP-09-24, 70 NRC at 730.

[128] Staff Petition at 24-25.

[129] LBP-09-24, 70 NRC at 764-65.

[130] Stipulated Facts at 4.

[131] LBP-09-24, 70 NRC at 762.

[132] *Id.* at 762 (citing Tr. at 1690-91, 1726).

At the meeting, Mr. Geisen presented two slides that discussed the results of past inspections.[133] One of these, "Slide 7," stated that all CRDM penetrations were "verified" to be free of the "popcorn" type boron deposits that indicate nozzle cracking.[134] But in actual fact, the nozzles could not be verified to be free of these deposits because massive boron deposits obscured many nozzles.[135]

The majority found that even though Mr. Geisen's statements at the meeting were inaccurate, they were consistent with his "general understanding . . . of the facts at hand."[136] According to the Staff, the majority based this general finding on its underlying findings that when the presentation slides were prepared: "(1) '[o]thers in the room plainly knew more than Mr. Geisen on these matters' and (2) no one contradicted the information Mr. Geisen was using for the slides and presentation."[137]

The Staff disputes the majority's finding that "others in the room were more knowledgeable than Mr. Geisen" when the team met to prepare slides. The Staff argues that this finding is inconsistent with Mr. Geisen's own testimony that "he was the 'scribe' for developing the slides on his laptop and that he believed he put in the information regarding past inspections because he was the most knowledgeable person there about inspections."[138]

But the majority's observation that "others . . . were more knowledgeable" was not about which manager knew the most about "inspections" generally. The majority was concerned about which persons in the room knew most about the true condition of the reactor head.[139] Given the various factors the majority discusses in its lengthy opinion concerning Mr. Geisen's other duties and his reliance on others for accurate information, it was not unreasonable for the majority to find that others knew more than Mr. Geisen about the reactor head's condition.[140]

In addition, the Staff points out that Slide 7 stated that all nozzles "were verified to be free" from boron[141] despite the fact that "Mr. Geisen knew that Davis-Besse had not yet completed this verification because he was responsible for overseeing it."[142] Mr. Geisen testified that, even though he knew that the table

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[133] Stipulated Facts at 4-5.

[134] *Id.* at 5.

[135] *Id.*

[136] LBP-09-24, 70 NRC at 764.

[137] Staff Petition at 24 (quoting LBP-09-24, 70 NRC at 764).

[138] *Id.* (citing Tr. at 1924-25).

[139] LBP-09-24, 70 NRC at 764.

[140] *See, e.g., id.* at 728-30.

[141] Staff Petition at 24 (quoting Staff Ex. 55, at 7) (available in Staff Exhibits, Part 2, at 170).

[142] *Id.* (citing Tr. at 1720-21, 1925, and Staff Ex. 71 (David Geisen testimony transcript at Geisen criminal trial at 1910) (ADAMS Accession No. ML100480730)).

Mr. Siemaszko was preparing had not yet been completed, he believed that this verification had been done during the past two inspections:

> [Judge Trikouros:] But did you speak to Mr. Siemaszko? I guess a week earlier you had that telephone call, the assignment was made for nozzle-by-nozzle table development. Did you speak to him at all during the following week that preceded this meeting?
>
> [Mr. Geisen:] He was — I did meet with him prior to this meeting to . . . check his methodology that he was using for doing that . . . nozzle-by-nozzle verification table. I cannot say that I specifically spoke to him about the word-by-word bullet that is in here, that I got it from him. There may have been things that he talked about in the process of describing his technique that I absorbed to create this bullet. But at the time this was delivered, I believed that between 1998 or . . . 2000, we had a good look at each nozzle. And it wasn't until after I got the nozzle table back from Mr. Siemaszko shortly after this presentation, that I realized that we had [spoken] in error. And that's when I brought it to the attention of Mr. Moffitt and Mr. Lockwood.[143]

Mr. Geisen also testified that during the briefing he relied for his information on Serial Letter 2731 — a letter he did not draft — as well as on input from others who participated in developing the slide presentation.[144] He further testified that he never claimed during the meeting that he personally had verified this information.[145]

The Staff also argues that "either Mr. Geisen made up the information or he lied"[146] because he testified that "he used only the information contained in Serial Letter 2731 to create the slides, yet he acknowledged that Serial Letter 2731 contained no information to support those representations."[147] But the transcript portions the Staff cites show only that Mr. Geisen could not identify the precise source of all the information presented in the slides.[148] This is consistent with

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[143] Tr. at 1931-32.

[144] Tr. at 1925-26.

[145] Tr. at 1927-28.

[146] Staff Petition at 25.

[147] *Id.* at 24-25 (citing Tr. at 925, 1928-29, 1943, 1944).

[148] *See, e.g.,* Tr. at 1925-26:

> [Question:] The only — is it correct to say that the only information you had still at this time was from reading serial letter 2731?
>
> [Mr. Geisen:] That's correct. It may have been also from some side bars with — because there were other people that participated in the development of the slides, so they may have brought stuff to the discussion, as well.

(Continued)

the majority's finding that the information contained in the slides was decided by consensus.[149] The testimony cited by the Staff does not, in our view, establish that Mr. Geisen knew that the information was inaccurate.

The Staff argues that Mr. Geisen knew at the time that the material in the presentation was inaccurate. As discussed above, the Staff relies principally on showing claimed inconsistencies in Mr. Geisen's own testimony at the hearing, but it provides no evidence that Mr. Geisen actually knew at the time of the meeting that the material was inaccurate. The Staff has offered, for example, no evidence from anyone who was present at the FENOC meeting when the slides were prepared to suggest that Mr. Geisen was told that the information to be presented was inaccurate. In short, at the hearing the Staff needed to convince the Board that either the attendees of the preparatory meeting concurred in the deception, or that Mr. Geisen knew of the inaccuracy and kept it to himself. But the transcript portions the Staff cites, discussed above, contain no information to support either argument.

The majority also found it significant that Mr. Geisen immediately alerted his management that the information presented to the Commissioners' assistants had been in error upon reviewing Mr. Siemaszko's nozzle-by-nozzle table completed shortly after the meeting.[150] Mr. Geisen testified at the hearing, and Stephen Moffitt testified at the criminal trial, to this effect.[151] That Mr. Geisen immediately took

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Tr. at 1928-29:

> [Question:] . . . Now, would you please direct our attention to where it says [in Serial Letter 2731] that all of the nozzle penetrations were verified to be free of popcorn deposits?
>
> [Mr. Geisen:] It doesn't use those exact words in there.
>
> [Question:] And what words did you rely on?
>
> [Mr. Geisen:] . . . I took the information that was in 2731, call it absorbed, became my frame of reference, and from that frame of reference made the statement . . .
>
> [Question:] Well, can you show us what words gave you that information?
>
> [Mr. Geisen:] The fact that the review was conducted to reconfirm that indications of boron leakage at Davis-Besse nuclear power station were not similar to those indications seen at ONS and ANO-l. That's in the bullet for subsequent review of 1998 and 2000 inspection video tapes.

Tr. at 1943:

> [Judge Trikouros:] And the source of that information is not clear to you at all.
>
> [Mr. Geisen:] I believe the majority of that information came from my understanding of 2731.

[149] LBP-09-24, 70 NRC at 762 ("[E]ach of these individuals [at the preparatory meeting] agreed with the accuracy of the information in all of the Powerpoint slides.").

[150] *Id.* at 762-63, 764-65.

[151] Tr. at 1721, 1931-32, 1946-47; Transcript of Trial, *United States v. Geisen,* Docket No. 3:06-CR-712 (N.D. Ohio) (Oct. 11, 2007), Tr. Vol. 7, at unnumbered p. 92 (ADAMS Accession No. ML092920148).

steps to alert others of the errors indicated to the majority that he was not aware that the information presented to the Commissioners' assistants was inaccurate when he presented it at the meeting days earlier. We agree with the Board majority that Mr. Geisen's prompt reporting of the contradictory information implies a lack of knowledge beforehand.

As with many of the facts surrounding how the situation unfolded at Davis-Besse, the question how Mr. Geisen came to prepare the slides and give the presentation to the Commissioners' technical assistants is complicated by the number of individuals involved and the large volume of testimony — much of it replowing the same ground. On the one hand, the Staff cites portions of Mr. Geisen's testimony where he avers that he generally was knowledgeable about the conditions at the plant. On the other, the majority credits his straightforward statements that he relied on others to provide accurate information in creating the slides that would be presented. At most, the Staff's arguments suggest that the majority could have received Mr. Geisen's statements with greater skepticism. Based on the record, the Board might well have determined that Mr. Geisen's testimony was not credible and ruled in favor of the Staff. But this possible alternative resolution of the case does not equate to finding no evidence in the record supporting the majority's view.

In the end, the majority weighed the evidence and, overall, found Mr. Geisen's version of events and of his own state of mind credible. Given that this finding of fact turns largely on Mr. Geisen's credibility as a witness, we see no clear error in the majority's ruling.

c. Conclusion

That the majority gave greater weight to Mr. Geisen's evidence than to the Staff's evidence is not a basis for overturning the majority's findings of fact. Such weighing of evidence and testimony is inherent in, and at the very heart of, adjudicatory fact-finding — an area where we have traditionally deferred to our licensing boards.[152] Regardless of whether we would have made the same findings as the majority were we in its position,[153] we recognize here that the majority's factual analysis and findings are detailed, thorough, internally consistent, and supported by record evidence. Further, the Board had the significant advantage,

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[152] *See, e.g., AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 259 (2009).

[153] *See Watts Bar,* CLI-04-24, 60 NRC at 189 ("'We will not overturn a hearing judge's findings simply because we might have reached a different result.'") (quoting *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93-94 (1998) (in turn quoting *General Public Utilities Nuclear Corp.* (Three Mile Island Nuclear Station, Unit 1), ALAB-881, 26 NRC 465, 473 (1987))).

unavailable to us, of observing the witnesses firsthand and judging their demeanor and credibility. For these reasons, we decline to overturn the Board majority's findings of fact.

3. Legal Challenges

Our reviews of boards' legal conclusions are more searching than our reviews of their findings of fact. We review legal questions de novo, and will reverse a board's legal conclusions if they depart from or are contrary to established law.[154]

a. The Weight the Majority Assigned to Circumstantial Evidence

The Staff criticizes the majority for affording "more weight to the absence of certain pieces of direct evidence than to the totality of circumstantial evidence."[155] For instance, the Staff asserts that the majority gave more weight to the Staff's decision not to put on any witnesses to incriminate Mr. Geisen than to the cumulative weight of direct and circumstantial evidence that, in the majority's view, illustrated Mr. Geisen's actual knowledge that his statements were false.[156] The Staff points out that it is permitted to prove its case using either direct or circumstantial evidence and that the two carry equal probative value.[157] According to the Staff, the majority's balancing contravenes established evidentiary law and therefore requires a reversal.

As with its argument regarding the so-called "Five-Factor Test," discussed above, the Staff here dresses up a factual argument as a legal one. The majority weighed and balanced numerous factors in reaching its factual findings. In that process, it necessarily determined how much weight to give the circumstantial evidence upon which the Staff relied. The fact that the majority assigned less weight to such evidence than the Staff would prefer does not mean that the majority made a legal determination that all (or even some) circumstantial evidence must be ignored *because* of its circumstantial nature. Had the Board actually made *that*

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[154] *See id.* at 190.

[155] Staff Petition at 9 (citing LBP-09-24, 70 NRC at 705-06, 733 n.112, 785, and citing favorably Judge Hawkens's dissent, LBP-09-24, 70 NRC at 850 n.43).

[156] *Id.* (citing 70 NRC at 705-06, 785 (discussing the significance of lack of direct testimonial evidence)). *See also id.* at 10 n.26 (citing LBP-09-24, 70 NRC at 785-86, and LBP-09-24, 70 NRC at 850 n.43).

[157] *Id.* at 9-10 (citing *Desert Palace v. Costa,* 539 U.S. 90, 99-100 (2003); *United States Postal Service Board of Governors v. Aikens,* 460 U.S. 711, 714 n.3 (1983) ("As in any lawsuit, the plaintiff may prove his case by direct or circumstantial evidence."); *Doe v. United States Postal Service,* 317 F.3d 339, 343 (D.C. Cir. 2003) (the court "draw[s] no distinction between the probative value of direct and circumstantial evidence")).

determination, it would have committed legal error for the reasons set forth by the Staff. Yet we see nothing in the majority's decision to suggest that it did so.[158] And absent such a legal determination, the degree of consideration the Board paid to the Staff's circumstantial evidence falls squarely within the bounds of a factual finding related to weighing evidence. We therefore defer to the majority, just as we did in the preceding section of today's decision, where we examined the Staff's challenges to the majority's findings of fact but found no clear error.

b. Majority's Improper Reliance on "Sanctions" Evidence in "Violation" Determination

On the final day of the 5-day evidentiary hearing, when the Board was considering the appropriateness of the Enforcement Order's penalty,[159] Mr. Geisen offered into evidence the NRC Office of the Inspector General's 2004 Semiannual Report to Congress.[160] The OIG Report addressed, among many other things, the adequacy of the Staff's response to the corrosion problem at Davis-Besse during 2001 and 2002.[161] As relevant here, it stated that "[t]he Davis-Besse Senior Resident Inspector and the Resident Inspector and possibly a Region III based inspector" had seen a FENOC Condition Report,[162] which included a so-called "Red Photo,"[163] but that they had failed to recognize "the significance of the boric acid corrosion."[164] The OIG Report's focus was the actions of the NRC Staff and not the actions of the licensee or its employees.

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[158] Indeed, the majority explicitly stated that it did "not dispute that circumstantial evidence can be compelling." LBP-09-24, 70 NRC at 785. Elsewhere, it raised the question whether "the quality of circumstantial evidence [was] sufficient to give rise to a finding that the person charged actually knew the information" — a question that would have been irrelevant to the Board had it determined to ignore all of the Staff's circumstantial evidence. *Id.* at 708. And finally, the Board actually complimented the Staff for its "commendable effort [in] drawing upon an abundance of circumstantial evidence [to] support[ ] the underlying charges of the Enforcement Order." *Id.* at 786-87.

[159] The Board devoted the first 4 days of the enforcement hearing to the violation issue, and the final day (Friday, December 12, 2008) to the sanctions/penalty issue. *See* Tr. at 793-2004 (violation), 2005-2342 (sanctions); Staff Petition at 10 n.28.

[160] Geisen Ex. 27, NUREG 1415, Vol. 16, No. 2, "[NRC] Office of the Inspector General Semiannual Report to Congress" (Apr. 2004) (ADAMS Accession No. ML092610792) (OIG Report). *See* Tr. at 2202-03 (submitted), 2296-2302 (admitted into evidence).

[161] OIG Report at 12.

[162] Staff Ex. 19, Condition Report 2000-0782 (Apr. 6, 2000) (available in Staff Exhibits, Part 1, at 364). Condition Report 2000-0782 was prepared by a Davis-Besse engineer in April 2000 at the beginning of Davis-Besse RFO 12. *See* OIG Report at 12.

[163] The "Red Photo" was a "photograph of the reactor vessel head prior to the cleaning, that showed what Mr. Geisen believed to be flange leakage flowing in a lava-like fashion from some mouseholes at the bottom of the reactor vessel head." LBP-09-24, 70 NRC at 733 (citing Tr. at 1569)).

[164] OIG Report at 12.

Mr. Geisen introduced the OIG Report in an apparent effort to rebut the Staff's claim that he must have known of the significance of the corrosion, yet did not inform the NRC.[165] We understand that Mr. Geisen introduced the report to show that the NRC inspectors' own failure to appreciate the significance of the corrosion lends credence to his own claim that he merely had failed to recognize this significance rather than that he intentionally had hidden that significance from the NRC.[166] In addition, Mr. Geisen argued that the OIG Report draws into question the integrity of the fact-finding investigation that led up to the Enforcement Order.[167]

The Staff objected at the hearing to the Board's consideration of the OIG Report, arguing that it concerned the Staff's rather than Mr. Geisen's knowledge and performance, and was therefore irrelevant to the enforcement proceeding, where only Mr. Geisen's knowledge and actions were at issue.[168] The Board assured the Staff that it would not rely on the OIG Report when deciding whether to find Mr. Geisen in violation of the NRC's regulations.[169] Specifically, the Board promised that its "decision on Mr. Geisen's liability [would be] based on the evidence [it] heard from Monday through Thursday," during the "violation" phase of the hearing,[170] and not evidence received on Friday, December 12, 2008, during the "sanctions" phase. But when the majority issued LBP-09-24, it overlooked this commitment. Relying specifically on the Report's statement that NRC inspectors had not recognized the significance of the Condition Report and the "Red Photo" as it related to possible boric acid corrosion, the majority

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[165] *See* Tr. at 2206-07. *See also id.* at 1289 (Dr. Hiser: "[The Red Photo] should tell almost any engineer that there is a significant problem there at Davis-Besse."), 1292 (Dr. Hiser: "I would hope that [the photo's significance would be] fairly obvious to pretty much all engineers.").

[166] Post-Trial Brief of David Geisen with Proposed Findings of Fact and Conclusions of Law at 45 (Jan. 30, 2009) ("No one explained how the Red Photo which was given to the Resident Inspector and made no impression on him was somehow to make a greater impression on everybody at Davis-Besse who saw it.").

[167] Tr. at 2208 (Mr. Geisen's counsel to Staff witness Mr. O'Brien: "Did you take into consideration the findings of the OIG into what you decided about the credibility and integrity of the information you were considering and on the sanctions that you ultimately imposed on Mr. Geisen?"), 2297-98 (Mr. Geisen's counsel).

[168] Tr. at 2204 (Staff counsel: "I have to object. This is completely immaterial, what the . . . OIG investigated about conduct of the Staff."), 2296 (Staff counsel: "I would question the relevance of it.").

[169] Tr. at 2157-59.

[170] Tr. at 2157 (Judge Farrar). *See also* Tr. at 2158-59 (Judge Farrar: "if Mr. O'Brien said, 'Now that I think about it, I don't think he's guilty,' we might still find him guilty *based on the evidence we heard from you from Monday through Thursday.*" (emphasis added)).

concluded that "we cannot fairly infer that Mr. Geisen must have known of its ramifications, when others did not."[171]

On appeal, the Staff argues that the majority committed prejudicial procedural error by relying upon the OIG Report's statement. The Staff complains that it relied upon the Board's assurances and therefore presented no rebuttal evidence on the matter insofar as the statements in the OIG Report related to Mr. Geisen's asserted regulatory violation.[172] The Staff claims that, absent such assurances from the Board, it "would have sought to rebut such evidence when it was submitted."[173]

We agree with the Staff that the Board erred. Mr. Geisen submitted the OIG Report into evidence during the "sanctions" portion of the hearing. When admitting the report into evidence, the Board committed not to consider it when determining whether to sustain the Staff's finding of violation. Yet the majority did take the OIG Report into account when making that determination. Consequently, we find that the majority either should not have considered the OIG Report when determining whether Mr. Geisen had violated our regulations or should have given the Staff an opportunity to present rebuttal evidence.[174]

But to prevail on appeal, the Staff must show not only that the majority erred but also that the error had a prejudicial effect on the Staff's case.[175] Despite acknowledging this burden of proof in its petition for review,[176] the Staff articulated no explanation of how it had been prejudiced by the majority's reliance upon the OIG Report. Indeed, the Staff's only mention of prejudice in this context is one conclusory sentence in its petition for review: "[b]y inappropriately allowing the [OIG] Report to be introduced for the purpose of determining

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[171] LBP-09-24, 70 NRC at 734 (emphasis omitted). *See also id.* at 735 ("[I]t is a fact that at least one key Staff official was no better at diagnosing the disastrous potential of what was seen than was Mr. Geisen. . . . We are unwilling to impute to Mr. Geisen knowledge that the Staff was unable to derive for itself . . . .") (emphasis omitted).

[172] Staff Petition at 10-11.

[173] *Id.* at 11.

[174] It appears the Board invited the Staff to brief the issue of the OIG Report's admissibility (Tr. at 2299 (Judge Hawkens), 2301 (Judge Farrar)), but that the Staff did not take advantage of this opportunity.

[175] *Boston Edison Co.* (Pilgrim Nuclear Power Station), ALAB-816, 22 NRC 461, 468 n.28 (1985) ("We expect parties taking appeals on purely procedural points to explain precisely what injury to them was occasioned by the asserted error." (citation omitted)); *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), ALAB-788, 20 NRC 1102, 1151 (1984) ("[A] mere demonstration that the Board erred is not sufficient to warrant appellate relief. 'The complaining party must demonstrate actual prejudice — *i.e.,* that the ruling had a substantial effect on the outcome of the proceeding.'" (quoting *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1096 (1983))).

[176] Staff Petition at 3 n.8.

liability, despite the Board's statements to the contrary, the Staff was prejudicially harmed by the Majority's action."[177]

Had the Staff submitted an offer of proof to us, indicating what rebuttal evidence it would have offered to the Board, then we might have some basis for determining whether that evidence would be substantial enough to justify a remand to the Board.[178] But the Staff provides us no offer of proof.[179] We therefore find ourselves in the same situation as the Appeal Board in *Pilgrim* a quarter-century ago: "[f]or all we know, [the appealing party's] case . . . is so weak that . . . the denial of [a] right [to reply] by the Licensing Board would have been harmless error."[180]

Indeed, our review of the adjudicatory record in this proceeding suggests that the majority's consideration of the OIG Report had little to do with its conclusion that Mr. Geisen did not violate section 50.5(a)(2). It appears the majority did not consider the "Red Photo" to be the "smoking gun" that the Staff considered it to be. As an initial matter, the majority found credible Mr. Geisen's testimony that, when he saw the Red Photo during the 2000 refueling outage (RFO 12), "it did not create any alarm or strike him as a warning that any pressure boundary leakage issue existed."[181] Further, the majority found that even if Mr. Geisen had realized, when he saw the Red Photo, that it indicated a serious problem with the reactor head, he would not necessarily have connected that photo with the information in the Bulletin response he was asked to review:

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[177] *Id.* at 11. We repeatedly have stated that we will not consider cursory, unsupported arguments. *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 337 (2002); *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Units 1, 2, and 3), CLI-00-18, 52 NRC 129, 132 (2000); *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 204 n.6 (2000).

[178] *See generally Texas Utilities Generating Co.* (Comanche Peak Steam Electric Station, Units 1 and 2), ALAB-255, 1 NRC 3, 7 (1975).

[179] From the argument at hearing, we could infer that the Staff would have attempted to show that no NRC inspector saw the Red Photo before the corrosion was discovered in March 2002. *See* Tr. at 1292 (Staff counsel: "Your Honor, just for clarification, there is nothing in the record, at least so far, that indicates that a resident inspector saw this photo or received it or anything of that nature"). *See also id.* at 2297 (Staff counsel) ("Mr. Simpkins [a resident inspector at Davis-Besse] actually testified in Mr. Siemaszko's criminal trial . . . several times that to the best of his recollection he had never — he didn't receive the red photo. . . . Mr. Simpkins testified that he doesn't recall ever seeing the red photo during the period in question.").

[180] *Pilgrim,* ALAB-816, 22 NRC at 468 n.28 (citation omitted). The Appeal Board in *Shoreham* also specifically pointed to the intervenor's failure to make an "offer of proof in connection with any affirmative expert testimony it would have put forward." *Shoreham,* ALAB-788, 20 NRC at 1155-56. *Compare Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-778, 20 NRC 42, 49 (1984), where the Appeal Board ruled that a Licensing Board had erred in holding it lacked authority to consider contentions based on recent revisions to a license application, but that the error was harmless because the intervenor had never submitted any contentions on the revisions.

[181] LBP-09-24, 70 NRC at 734 (citing Tr. at 1570).

> even if Mr. Geisen had recalled the Red Photo as alerting him to the condition of the reactor vessel head from the 2000 outage, the information in Serial Letter 2731 does not on its face appear to contrast so significantly with that knowledge that it would catch the attention of one whose role in that letter was so minimal. *Mr. Geisen is not being charged with failing to identify a corrosion issue as illustrated in the Red Photo.* He is charged with deliberately providing incomplete and inaccurate information by signing the Green Sheet review for Serial Letter 2731.[182]

The majority cited the OIG Report's statement that an NRC inspector or inspectors saw the photo "not to suggest [a] dereliction of duty" by the NRC Staff but to show that the photo may seem more significant with the benefit of "hindsight."[183] It does not appear that the majority placed a great deal of weight on an implicit comparison of the NRC inspectors' reactions with Mr. Geisen's reaction to the photo. As we read the majority's decision, its reliance upon the OIG Report was cumulative at most; it merely supplemented many other reasons for the majority's decision regarding the violation, and had no direct bearing on the question whether Mr. Geisen violated our regulations, as specified in the Enforcement Order. The OIG Report, in short, did not have "a substantial effect on the outcome of the proceeding."[184]

In sum, while the Board indeed erred in considering the OIG Report without permitting the Staff to offer rebuttal evidence, the Staff has failed to show that this mistake worked to its disadvantage. The record does not show that the Board majority might have reached a different result had it handled the OIG Report properly. We therefore conclude that the Board's action amounts to harmless error.

c. The Majority's Decision Not to Apply Collateral Estoppel

On appeal, the Staff challenges the majority's refusal to apply collateral estoppel to establish Mr. Geisen's culpability with respect to one of the communications that formed the basis of both his criminal conviction and the Enforcement Order.

The parallel criminal prosecution against Mr. Geisen charged him with five counts of submitting materially false information to the government relating to the events at Davis-Besse, in violation of Title 18 of the U.S. Code. Mr. Geisen was convicted on counts 1, 3, and 4 of the criminal indictment.

Count 4 of the criminal indictment dealt exclusively with representations in Serial Letter 2744, which was among the last communications from FENOC to

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[182] *Id.* at 735 (emphasis in original).

[183] *Id.* at 734.

[184] *Shoreham,* ALAB-788, 20 NRC at 1151.

the NRC relating to the Bulletin, sent on October 30, 2001.[185] While the letter was intended to correct misinformation sent in FENOC's earlier responses to Bulletin 2001-01, information in the letter was still inaccurate and misleading.[186] Count 4 of the criminal indictment listed six different aspects in which Serial Letter 2744 was misleading, including (as relevant here): overstating the number of nozzles capable of being viewed in past inspections, and stating that photos attached to the letter, which showed relatively little boron accumulation, were representative of the head's condition when in fact they were not.[187] The jury returned a general verdict of "guilty" on Count 4.

Prior to the evidentiary hearing, the Staff moved for the Board to apply the collateral estoppel doctrine to the issue of whether Mr. Geisen knew that Serial Letter 2744 contained materially false information when he concurred in its release.[188] The Staff reasoned that, if the Board applied collateral estoppel to issues decided in the criminal proceeding, Mr. Geisen would be prevented from raising the defense that he did not know Serial Letter 2744 was false and misleading when he approved it.

Because the Enforcement Order referred to more asserted misrepresentations than those in Serial Letter 2744, however, applying collateral estoppel would not eliminate the need for a hearing entirely, but only limit its scope. The Board therefore declined to rule on collateral estoppel before the hearing in order to avoid possible "inefficiencies and delays . . . as counsel sparred over whether particular pieces of evidence were barred by that scope ruling."[189]

In its merits decision, the majority rejected the Staff's motion to apply collateral estoppel, and chose to evaluate for itself whether the Staff had proved that Mr. Geisen knowingly provided false and misleading information with respect to all of the communications referenced in the Enforcement Order, including those associated with Serial Letter 2744. The majority stated that even if all the necessary elements of collateral estoppel were present (on which it made no express finding), discretionary factors weighed strongly in favor of rejecting its use in this proceeding.[190]

Judge Hawkens, however, found that all the necessary elements of collateral

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[185] Counts 1 and 3 pertained to alleged misrepresentations in Serial Letter 2741, which was not mentioned in the Enforcement Order. Mr. Geisen has appealed his conviction. *See supra* note 24.

[186] For example, while Serial Letter 2744 acknowledged that many nozzles could not be seen due to boron accumulation during the 1998 and 2000 inspections, it understated the number of nozzles that could not be seen. In addition, Serial Letter 2744 stated that 65 of 69 nozzles were viewed in the 1996 inspection, although fewer nozzles could be viewed at that time. *See* Stipulated Facts at 8-9.

[187] Indictment at 13.

[188] NRC Staff Motion for Collateral Estoppel (Nov. 17, 2008) (Motion for Collateral Estoppel).

[189] LBP-09-24, 70 NRC at 710-11.

[190] *Id.* at 711-25.

estoppel were met as to Serial Letter 2744.[191] Further, Judge Hawkens argued that there is a "compelling public interest" in preserving public faith in the adjudicatory process by avoiding inconsistent results, and concluded that this must outweigh any "private interest" Mr. Geisen might have in relitigating the issue of whether he knowingly made material false statements to the government.[192]

Fundamentally, the majority questioned whether the prerequisites of collateral estoppel were met as to the findings regarding Serial Letter 2744 in this proceeding, because the general jury verdict prevented the Board from knowing whether the issue sought to be precluded was identical to the issue decided in the criminal action. Without overtly addressing the requirements of collateral estoppel, the majority essentially determined that those requirements were not met. The majority concluded that unless the Board was certain that the issue decided in the criminal proceeding was identical to the issue before the Board — specifically, whether Mr. Geisen actually knew at the time that the information he provided to the NRC in Serial Letter 2744 was false and misleading — it could not apply the doctrine in this proceeding. The majority's decision not to apply collateral estoppel in this instance was not in error.

(1) THE COLLATERAL ESTOPPEL DOCTRINE

As Judge Hawkens stated, the collateral estoppel doctrine "'precludes the relitigation of issues of law or fact which have been finally adjudicated by a tribunal of competent jurisdiction in a proceeding involving the same parties or their privies.'"[193] Its use has long been recognized as part of NRC adjudicatory practice.[194] Decades ago, our Appeal Board recognized that our boards may give collateral estoppel effect to issues previously decided in a district court proceeding.[195] The four prerequisites to collateral estoppel are: "'(1) the issue sought to be precluded [is] the same as that involved in the prior action; (2) that issue [was] actually litigated'" in the prior action; (3) there is a valid and final judgment in the prior action; and "'(4) the determination [was] essential to the prior judgment.'"[196] In addition, the party to be prevented from relitigating the issue must have been a party to the prior action; the party seeking to prevent

[191] *Id.* at 812-14.

[192] *Id.* at 822-23.

[193] *Id.* at 809 (quoting *Toledo Edison Co.* (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-378, 5 NRC 557, 561 (1977))).

[194] *See, e.g., Southern California Edison Co.* (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-673, 15 NRC 688, 695 (1982).

[195] *Davis-Besse,* ALAB-378, 5 NRC at 562-63.

[196] LBP-09-24, 70 NRC at 711 (quoting *Houston Lighting and Power Co.* (South Texas Project, Units 1 and 2), LBP-79-27, 10 NRC 563, 566 (1979), *aff'd,* ALAB-575, 11 NRC 14 (1980))).

relitigation through the application of collateral estoppel need not have been a party.[197]

Mr. Geisen argued before the Board, as he does on appeal, that the first requirement of this test was not met.[198] Resolving that question turns on whether the issues decided regarding Mr. Geisen's participation in preparing and submitting to the NRC Serial Letter 2744 were identical in the criminal and NRC proceedings. Whether collateral estoppel should be applied is a legal question that we review de novo.[199]

(2) MAJORITY DECISION TO REJECT COLLATERAL ESTOPPEL

The majority gave three "discretionary" reasons for its decision to reject collateral estoppel, each of which, standing alone, would provide sufficient grounds for doing so, according to the majority.[200] The first — which we find dispositive — is that due to a specific instruction given to the jury in the criminal trial, the criminal conviction may have been based on a standard of "knowledge" different from that used in our proceeding (and in our Enforcement Policy).[201] Coupled with the jury's general — as opposed to special — verdict, the majority ruled that it could not be certain whether the knowledge standards were the same in both proceedings.

We uphold the majority's decision. Count 4 of the criminal indictment charged that Mr. Geisen "did knowingly and willfully make, use, and cause others to make and use a false writing . . . knowing that it contained the following material statements, which were fraudulent in [enumerated respects]."[202] In its charge to the jury, however, the court included an instruction that a person cannot "avoid responsibility for a crime by deliberately ignoring the obvious,"[203] and that, if Mr. Geisen "deliberately ignored a high probability that the submissions and presentations to the NRC" were false, then the jury could find that Mr. Geisen

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[197] *Parklane Hosiery Co. v. Shore,* 439 U.S. 322, 327-28, 331-32 (1979).

[198] *See* Geisen Answer at 17-24. He does not contest that the other requirements were satisfied.

[199] *See Watts Bar,* CLI-04-24, 60 NRC at 190.

[200] LBP-09-24, 70 NRC at 725.

[201] *Id.* at 715, 722-23. The majority also found that application of the doctrine, instead of streamlining the proceeding, would actually lead to an additional delay before the enforcement proceeding finally could be resolved. Because Mr. Geisen would remain under an employment ban until that time, the burden of the delay would fall disproportionately on him, the majority observed. *Id.* at 712-14. Finally, the majority found that potentially inconsistent jury verdicts undermined the validity of the conviction on Count 4. *Id.* at 724-25. We find that we need not consider these final two rationales, because the first provides sufficient grounds for the majority's decision to reject use of the doctrine.

[202] Indictment at 12.

[203] Transcript of Trial, *U.S. v. Geisen,* Docket No. 3:06-CR-712 (N.D. Ohio Oct. 23, 2007), Vol. 13, at unnumbered p. 139 (ADAMS Accession No. ML092920145).

"knew" they were false.[204] The court advised the jury that conviction on this theory requires that a defendant "deliberately closed his eyes to what was obvious," but that mere "carelessness, or negligence, or foolishness" would not be enough to convict.[205]

Mr. Geisen argued before the Board that this jury charge embraced a "deliberate ignorance" (or "willful blindness") theory,[206] which holds that a defendant can be convicted if he was aware that a "high probability" existed of the fact or circumstances that would make his conduct criminal, but ignored that probability so he can disclaim knowledge later.[207] The majority agreed that the instruction to the jury introduced the possibility of a conviction on a deliberate ignorance theory.[208]

The distinction between the court's "deliberate ignorance" standard and the "deliberate misconduct" standard applied in this case is highly significant, indeed, decisive. The Staff, when moving for collateral estoppel, itself *conceded* that "the 6th Circuit's deliberate ignorance instruction does not meet the NRC's deliberate misconduct standard, and instead would be classified as careless disregard."[209] On appeal, the Staff does not change its position.[210] It does not argue that the court's "deliberate ignorance" charge equates to the "deliberate misconduct" standard under our Enforcement Policy.

The majority treated this issue as a discretionary factor weighing against collateral estoppel because it could not be sure on which legal theory the jury convicted Mr. Geisen.[211] In essence, however, the majority found that a key legal requirement for collateral estoppel was not met. If the criminal conviction were in fact based on a standard of knowledge lower than that of our deliberate misconduct standard, then the first requirement of collateral estoppel — that the relevant issue is identical in both proceedings — would not be met. In other words, if the jury

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[204] *Id.*

[205] *Id.* at unnumbered p. 140.

[206] *See, e.g.,* David Geisen's Response to the Board's Questions (Feb. 9, 2009) at 1.

[207] *See, e.g., United States v. Jewell,* 532 F.2d 697, 699 (9th Cir. 1976) (drug smuggling conviction upheld where evidence showed that "although appellant knew of the presence of the secret compartment and had knowledge of facts indicating that it contained marijuana, he deliberately avoided positive knowledge of the presence of the contraband to avoid responsibility in the event of discovery"); *United States v. Wasserson,* 418 F.3d 225, 237-39 (3d Cir. 2005) (unlawful disposal conviction upheld where defendant knew contractor could not lawfully dispose of hazardous waste at the price defendant was paying, but defendant demanded that unsophisticated contractor "assume responsibility" for the waste).

[208] LBP-09-24, 70 NRC at 715.

[209] Motion for Collateral Estoppel at 23.

[210] *See generally* Staff Petition at 13-14 (focusing instead on its argument that jury convicted Mr. Geisen based on "actual, positive knowledge").

[211] LBP-09-24, 70 NRC at 715.

convicted Mr. Geisen not because he knew the information in Serial Letter 2744 was false, but because he failed to investigate whether the information in the letter was false, then collateral estoppel could not apply. On the other hand, if the jury convicted Mr. Geisen because they found he *actually knew* the information was false, then the "identity of issues" requirement of collateral estoppel would be satisfied. The majority found, however, that because the jury returned a general verdict of "guilty" on Count 4, the majority could not determine on which theory Mr. Geisen was convicted.

As to this issue, the Staff argues that the majority improperly substituted its determination of fact for that of the jury by finding insufficient evidence of "deliberate ignorance" and actual knowledge.[212] Among other things, the Staff argues that the "questions over the equivalence of the 'knowledge' standard" is not the type of consideration that would bar the application of collateral estoppel.[213] We disagree and find that uncertainty resulting from the jury instruction, coupled with the general verdict, was reason enough for the Board to reject use of the doctrine in this case.

The Staff argued before the Board, as it does on appeal, that the Board could look at the evidence presented in the jury trial to determine itself on which theory the jury based its conviction.[214] The majority regarded the Staff's argument as an invitation for the Board to examine the evidence presented at the criminal trial and make a judgment as to which theory the jury used to convict Mr. Geisen.[215] But, as the majority observed, "[p]erforming such a duplicative examination is precisely what application of collateral estoppel is intended to prevent. If we must reexamine the issue one way or another, it makes more sense to do it on the evidence presented to us than on the evidence presented elsewhere."[216]

As our Appeal Board once cautioned, in determining whether to apply collateral estoppel, a board should not look into the jury trial to determine whether the verdict was "correct."[217] Issues not decided by special verdict are difficult to decipher for collateral estoppel purposes because of the uncertainty whether

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[212] Staff Petition at 13.

[213] *Id.* at 12-13.

[214] Motion for Collateral Estoppel at 3, 11-12. *See also* Staff Petition at 14.

[215] *See* LBP-09-24, 70 NRC at 722-23.

[216] *Id.* at 723.

[217] *Davis-Besse,* ALAB-378, 5 NRC at 562-63. *See also Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), LBP-02-20, 56 NRC 169, 182 (2002) ("The correctness of the prior decision is not . . . a public policy factor upon which the application of the doctrine of collateral estoppel depends.").

the precise issue was "actually determined" in the prior criminal case.[218] This uncertainty is reason enough to find that the issue decided by the general verdict should not be accorded preclusive effect.[219]

The Staff also argues that the majority erroneously assumed that the jury "failed to follow the district court's instructions" in delivering the guilty verdict.[220] It is true that at two separate points in its discussion on the matter, the majority speculates that the jury may have been misled by the "deliberate ignorance" instruction to convict on a lesser finding of negligence.[221] But it does not appear to us that the majority *assumed* that the jury did so. The majority rejected collateral estoppel because a proper finding of guilt based on deliberate ignorance — in strict compliance with the jury instruction — would not equate to deliberate misconduct under our Enforcement Policy.[222] Coupled with the Staff's consistent position that "deliberate ignorance" is not the equivalent of deliberate misconduct in our enforcement proceedings, the majority found that the jury may have

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[218] *Cf. Board of County Supervisors v. Scottish & York Insurance Services,* 763 F.2d 176, 179 (4th Cir. 1985) ("We cannot distill special findings from a general verdict and to do so would intrude on the independent role of a jury as much as would a court's unilateral amendment of its verdict.").

[219] Nothing in the recent decision by the U.S. Court of Appeals for the Sixth Circuit affirming Mr. Geisen's conviction resolves the uncertainty. Notwithstanding the Sixth Circuit's decision, it remains unclear whether the jury (in issuing its general verdict) and the Licensing Board (in assessing the enforcement action) applied the same standard of knowledge. The Sixth Circuit's holding that the jury *could* have convicted Mr. Geisen under *either* a "deliberate ignorance" *or* an "actual knowledge" theory does not tell us what the jury *actually* found — the court's decision, therefore, does not resolve the Board majority's fundamental uncertainty. *United States v. Geisen,* 2010 WL 2774237 at *12-14, *16-18. The Sixth Circuit's affirmance of a jury verdict against Mr. Geisen — which may well have rested on a deliberate ignorance theory inapplicable in our proceeding — does not require setting aside our own Board's record-based factual findings.

It may seem counterintuitive for us to uphold a Board decision in favor of Mr. Geisen on essentially the same facts the Sixth Circuit found sufficient to convict him, particularly because our civil proceeding is governed by a preponderance-of-the-evidence standard, whereas the criminal case before the Sixth Circuit was governed by the stricter beyond-a-reasonable-doubt standard. Even so, these seemingly contradictory results do not justify applying collateral estoppel in this instance. The Board majority reasonably found itself unsure of the precise ground for the jury verdict, and thus declined to apply collateral estoppel. The Board held its own evidentiary hearing, developed its own record, and made its own fact findings — the Board majority, unlike the dissent, found Mr. Geisen's version of events credible. We cannot say that the Board decision not to apply the collateral estoppel doctrine here was unreasonable based on an after-the-fact appellate decision whose precise footing remains uncertain. In any case, the nature of this proceeding has generated interest in further exploring the standard of knowledge required for pursuing violations against individuals for deliberate misconduct. Therefore, outside of this adjudication, we intend to direct the Staff to analyze this issue.

[220] Staff Petition at 13-14.

[221] *See* LBP-09-24, 70 NRC at 720, 722.

[222] *See id.* at 722.

convicted Mr. Geisen on a theory that is not the same as that required to establish liability in our enforcement actions.

Responding to an argument made by Judge Hawkens that deliberate ignorance would satisfy our Enforcement Policy,[223] the majority stated that because the Staff had steadfastly "disavowed" this position before and throughout the hearing, it would be unfair for the Board to alter the theory of the Staff's case.[224] Mr. Geisen had tailored his presentations to counter the Staff's case as prosecuted, the majority reasoned. Indeed, the Staff does not argue on appeal that "deliberate ignorance" is equivalent to "deliberate misconduct" under our Enforcement Policy. In our view, the majority's determination was reasonable.

The majority mentioned two additional reasons supporting its decision not to apply collateral estoppel. First, the majority found that the delay caused by Mr. Geisen's appeal of his criminal conviction, which was still pending at the time, served as a second discretionary reason not to apply collateral estoppel in this particular enforcement action.[225] In addition, the majority articulated its concern that the validity of the jury's verdict was undermined by a potential inconsistency.[226] We need address neither of these factors, as we find that the potentially differing standards of "knowledge" in the criminal and civil proceedings was a dispositive basis for declining to accord preclusive effect to the jury verdict on Count 4.

III. CONCLUSION

For the reasons discussed above, we *grant* the Staff's petition for review, and *affirm* the majority's decision in LBP-09-24.[227]

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[223] Judge Hawkens concluded in his Dissenting Opinion that, despite any Staff concessions to the contrary, deliberate ignorance is a standard of knowledge that satisfies our Enforcement Policy. *See id.* at 816-20. Therefore, he found that the elements of collateral estoppel were met regardless of the jury's theory. Further, he concluded that the possibility that the jury's verdict was grounded on this theory provides no discretionary basis against applying the doctrine. *Id.* at 823. Rather, Judge Hawkens took the position that the Board should disregard the Staff's concession that deliberate ignorance would not satisfy our Enforcement Policy. He reasoned that a "surpassing public interest favors applying collateral estoppel, and no countervailing interest militates against its application." *Id.*

[224] *See id.* at 717. *See also id.* at 717 nn.76-77.

[225] *Id.* at 712-15.

[226] *Id.* at 724-25. Although Mr. Geisen was convicted on Count 4, the jury acquitted him of Count 5, which involved Serial Letter 2745 — a communication submitted to the NRC 2 days after Serial Letter 2744 containing similar misrepresentations. *See* Indictment at 14.

[227] Given that today's decision affirms the Board majority's decision to set aside the Enforcement Order, we need not address the Staff's final argument on appeal as to whether the majority correctly assessed the Staff's application of Factor 7 of the sanction determination process in our Enforcement Policy.

IT IS SO ORDERED.

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 27th day of August 2010.

Chairman Jaczko, Respectfully Concurring in Part and Dissenting in Part

I join with my colleagues in large part on this Order. I differ only in that I was more persuaded by the dissent's analysis of the collateral estoppel issue. But as the Commission's Order points out, the collateral estoppel issue would have only resolved one of the bases for the enforcement order in this case, and thus would not have eliminated the need for the hearing in its entirety. Mr. Geisen was subject to the enforcement order for almost 4 years. Even if collateral estoppel applied and resolved the single count at issue, the majority of the Board did not uphold the remaining violations. Therefore, whatever the ultimate penalty for that single count, Mr. Geisen was already subject to it. Thus, I believe the issue is effectively moot. The larger issue is the lack of clarity surrounding our standard of knowledge. The Commission has made it clear that its ruling here applies only in this instance, and we intend to request the Staff to review this larger issue outside of this adjudication. I look forward to further review of this issue at that time.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alex S. Karlin, Chairman
Nicholas G. Trikouros
Dr. Paul B. Abramson

In the Matter of **Docket Nos. 50-275-LR**
50-323-LR
(ASLBP No. 10-890-01-LR-BD01)

PACIFIC GAS AND ELECTRIC COMPANY
(Diablo Canyon Nuclear Power Plant, Units 1 and 2) **August 4, 2010**

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS; ROLE OF BOARD

The Board's role, in considering a petition for waiver under 10 C.F.R. § 2.335, is limited to deciding whether the petitioner has made a *prima facie* showing of special circumstances that would support a waiver. 10 C.F.R. § 2.335(c)-(d). If no *prima facie* showing has been made, then the Board "may not further consider the matter." 10 C.F.R. § 2.335(c). If the petitioner has made a *prima facie* showing of special circumstances, then the Board certifies the matter to the Commission. 10 C.F.R. § 2.335(d).

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS; *PRIMA FACIE* CASE

A *prima facie* showing merely requires the presentation of enough information

to allow the Board to infer (absent disproof) that special circumstances exist to support a waiver. It is not a ruling on the merits that a waiver is indeed warranted.

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMA) ANALYSIS

NRC regulations require that a license renewal ER include a SAMA analysis (if not previously considered by the Staff). 10 C.F.R. § 51.53(c)(3)(ii)(L). Thus, the adequacy, or inadequacy, of PG&E's SAMA analysis is certainly within the scope of this license renewal proceeding.

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

The Commission's NEPA review in the license renewal process is unlike the Commission's Part 54 review because the NEPA review covers all environmental impacts associated with license renewal and is not limited to aging-related issues.

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMA) ANALYSIS

A petitioner need not submit a sensitivity analysis in order to establish that a SAMA-related contention is "material" under 10 C.F.R. § 2.309(f)(1)(iv).

RULES OF PRACTICE: SUPPORT FOR CONTENTIONS

A petitioner does not need to provide "expert opinion" or a "substantive affidavit" in order to satisfy 10 C.F.R. § 2.309(f)(1)(v).

RULES OF PRACTICE: CONTENTIONS OF OMISSION

The Staff's propositions at this point regarding what would effectively cure the omission are matters for a merits decision, not for a determination of whether or not a contention of omission is admissible. The determination of the sufficiency of any cure submitted by the Applicant is a matter for a later day, once such a cure has been submitted to the Staff.

RULES OF PRACTICE: CONTENTIONS OF OMISSION

If the petitioner alleges that a new earthquake fault has been discovered within 600 meters of the nuclear reactors, and that the fruits of several new studies concerning the new fault will be available in the near term, then the contention that the environmental report is based on incomplete information (*see* 10 C.F.R. § 1502.22) is admissible and is not an improper request that the Board suspend the license renewal proceeding until the current studies are completed. To the contrary, once the contention is admitted, the evidentiary hearing will proceed in the normal course and the Board will decide the merits of whether the environmental report is, or is not, adequate and complete.

RULES OF PRACTICE: CONTENTIONS OF OMISSION

If the petitioner alleges that a new earthquake fault has been discovered within 600 meters of the nuclear reactors, and that the fruits of several new studies concerning the new fault will be available in the near term, then the contention that the environmental report is based on incomplete information (*see* 10 C.F.R. § 1502.22) is admissible and will not be rejected on the basis that there "will always be more data that could be gathered."

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS; ROLE OF LICENSING BOARD

If the admission of a contention requires the grant of a waiver request under 10 C.F.R. § 2.335, then the Board's role is to decide (a) whether the petitioner has made a *prima facie* showing for waiver, and (b) whether the contention is otherwise admissible. If both criteria are met, then the matter is referred to the Commission for a merits decision on the waiver. If either criterion is not met, the contention is dismissed.

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

RULES OF PRACTICE: CONTENTION ADMISSIBILITY; SCOPE

In order for a contention regarding environmental impacts of spent fuel storage to be "within the scope" of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii), and not violate 10 C.F.R. § 2.335(a), the Petitioner must obtain a waiver under 10 C.F.R. § 2.335(d).

RULES OF PRACTICE: BURDEN OF PERSUASION; *PRIMA FACIE* CASE

A *prima facie* case is defined as "1. The establishment of a legally required rebuttable presumption. 2. A party's production of enough evidence to allow the fact-trier to infer the fact at issue and rule in the party's favor." *Black's Law Dictionary* 1310 (9th ed. 2009).

RULES OF PRACTICE: BURDEN OF PERSUASION; *PRIMA FACIE* CASE

In the context of waiver petitions, "a prima facie showing . . . is one that is 'legally sufficient to establish a fact or case unless disproved,'" *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 22 (1988) (quoting *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-653, 16 NRC 55, 72 (1982)).

RULES OF PRACTICE: BURDEN OF PERSUASION; *PRIMA FACIE* CASE

The existence of a *prima facie* case is determined based on the sufficiency of the movant's assertions and informational/evidentiary support alone. We need not find that the Petitioner would ultimately prevail on the merits for a waiver, or whether the fact or case has been disproved, in order to certify its waiver petition to the Commission. Indeed, the issue of the merits of the waiver request is not before us. *See* 10 C.F.R. § 2.335(c)-(d). We only address whether the Petitioner has provided sufficient information in support of its waiver request to warrant requiring a substantive response by the Applicant and the NRC Staff.

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

In deciding whether the petitioner has established a *prima facie* case in support of a waiver petition, the Commission has said that the petitioner must show that the "*strict* application" of the regulation (from which waiver is sought) "'would not serve the purposes for which [it] was adopted.'" *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005) (emphasis added). In this case, the central purpose of Part 51 Appendix B and 10 C.F.R. § 51.53(c)(2) is to allow the NRC to comply with NEPA by identifying and evaluating certain environmental impacts (in this

instance, relating to the storage of spent fuel) that are generic to reactor license renewal proceedings, and then allowing the Applicant and NRC to dispense with site-specific evaluations of such environmental impacts in situations covered by the generic analysis. The purpose of the Part 51 rules is not simply to expedite the NEPA process. It is to apply generic determinations where the generic determinations are appropriate.

NEPA: ENVIRONMENTAL IMPACT STATEMENT; NEW AND SIGNIFICANT INFORMATION

Compliance with NEPA requires that, if new and significant information arises after the date of the issuance of the EIS and before the Agency decision, then the Agency must supplement or revise its EIS and consider such information. *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 371-72 (1989).

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

SLOMFP has alleged sufficient new information concerning the seismic situation at Diablo Canyon to raise a *prima facie* showing for the first element needed for a waiver, i.e., that the strict application of the generic NEPA analysis of the management of spent fuel in nuclear reactors that is contained in NRC's 1996 GEIS would not serve the purpose for which Part 51 Appendix B and 10 C.F.R. § 51.53(c)(2) were adopted.

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

SLOMFP has alleged sufficient new information concerning the seismic situation at Diablo Canyon to raise a *prima facie* showing for the third element needed for a waiver, i.e., that the seismic risk factors at Diablo Canyon are unique and different from the NEPA analysis contained in NRC's 1996 GEIS.

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

The Commission has stated that, in the context of a safety contention, the petitioner must show a waiver of the regulation is necessary to reach a "significant safety problem." *Millstone,* CLI-05-24, 62 NRC 560. In the context of an

environmental contention, the petitioner needs to show that the waiver of the regulation is needed to reach a significant environmental problem. This is consistent with 10 C.F.R. §§ 51.53(c)(iv) and 51.92(a)(2) which require NRC to consider new and significant information that arises after the environmental impact statement.

SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMA) ANALYSIS: APPLICABILITY

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

Although the terms "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated these terms clearly limit them to nuclear reactors, and do not include spent fuel pools or storage. *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 21 (2001) (citing Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138 (Aug. 8, 1985)).

SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMA) ANALYSIS: APPLICABILITY

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

SAMA analyses are not required for the spent fuel storage impacts associated with license renewals. *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 471-75 (2010).

RULES OF PRACTICE: CONSTRUCTION OF CONTENTIONS

If the petition's "header" for a contention uses the phrase "SAMA Analysis," but the "statement of the contention" does not refer to the phrase "SAMA Analysis," the petition never refers to the SAMA analysis regulation (10 C.F.R. § 51.53(c)(3)(ii)(L)), and the primary thrust of the briefing by all parties does not focus on SAMA analysis issues, then the Board may interpret the contention in accordance with the express "statement of the contention" and not reject it as an impermissible "SAMA analysis" contention.

LICENSE RENEWAL APPLICATIONS: NEPA AND PART 51 REQUIREMENTS

NEPA requires the NRC to make an informed decision regarding the environmental consequences of the grant of this license renewal, and such information must either include consideration of the likelihood and consequences of such an event or indicate through reasonable analyses satisfactory under Ninth Circuit guidelines that the event is remote and speculative as the term is used in NEPA analyses. We believe that NEPA's duty to consider the environmental impacts of a proposed action incorporates, at least implicitly, considerations of the probability of a particular consequence occurring.

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

The requirement of 10 C.F.R. § 2.335(d) that a waiver petition be accompanied by an affidavit that identifies the aspects of the subject matter of the licensing proceeding that warrant the waiver and that states the special circumstances that justify the waiver, does not require that the affiant be an expert.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY AND WAIVER OF RULES

The petitioner has presented a *prima facie* showing for the waiver of the NRC regulation covering the environmental impacts of spent fuel pool accidents generically, and has shown that Contention EC-2 (concerning earthquake-induced spent fuel pool accidents at Diablo Canyon) is otherwise admissible. Accordingly, the contention is referred to the Commission for a ruling as to whether a waiver is warranted.

RULES OF PRACTICE: WAIVER OF RULES OR REGULATIONS

A *prima facie* showing in support of a waiver requires a showing that there are special circumstances that are unique to the Diablo Canyon facility. The fact that NRC has evaluated the threat of terrorist attack at spent fuel pools at every power plant site in the United States does not show that the Diablo Canyon site is unique. Therefore Contention EC-3 is inadmissible because it is not supported by a *prima facie* showing of waiver.

SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMA) ANALYSIS: REQUIREMENTS

Under the Commission's regulations implementing NEPA, the environmental

report submitted by a license renewal applicant must include a SAMA analysis if such an analysis has not already been performed. 10 C.F.R. § 51.53(c)(3)(ii)(L).

RULES OF PRACTICE: CONTENTIONS; NEPA

Although the obligations under NEPA fall to the agency (and therefore the NRC Staff), petitioners are required to raise environmental objections based on the ER, 10 C.F.R. § 2.309(f)(2), and therefore the assertion that there is relevant information missing from the SAMA analysis, which is part of the ER, is appropriate at this point.

NEPA: TERRORIST THREATS CONSIDERED IN AGENCY REVIEW

RULES OF PRACTICE: CONTENTION ADMISSIBILITY; MATERIALITY

Given that consideration of terrorist attacks is part of the NRC's NEPA obligations in the Ninth Circuit, the issue of whether terrorist attacks have been fully considered in the NEPA analysis for Diablo Canyon is plainly material to the decision the NRC must make, and thus satisfies 10 C.F.R. § 2.309(f)(1)(iv).

RULES OF PRACTICE: CONTENTIONS; SAMA

This situation is distinguishable from the Commission's ruling in *McGuire/Catawba,* where the Commission found a SAMA analysis contention to be inadmissible because it lacked supporting information regarding the relative costs and benefits of that proposed alternative. *See Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 11-12 (2001). Moreover, the Commission noted that the Applicant's ER did address SAMAs related to the severe accident sequence at issue in the contention. *Id.* at 12. Here, by contrast, SLOMFP has alleged that "it's an entire field that's been neglected, just not addressed at all." The Commission's concern in *McGuire/Catawba* that, "[f]or any severe accident concern, there are likely to be numerous conceivable SAMAs and thus it will always be possible to come up with some type of mitigation alternative that has not been addressed by the Licensee," CLI-02-17, 56 NRC at 11, therefore is inapplicable to the present situation because SLOMFP asserts the omission of an entire class of scenarios.

NEPA: TERRORIST THREATS CONSIDERED IN AGENCY REVIEW

RULES OF PRACTICE: CONTENTION ADMISSIBILITY; SCOPE

SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMA) ANALYSIS: REQUIREMENTS

SLOMFP's assertion that terrorist-act-originated SAMA analysis is required by Ninth Circuit law also satisfies the requirements of 10 C.F.R. § 2.309(f)(1)(iii) that the issue be within the scope of this proceeding. We are not persuaded that this issue has been generically addressed in the 1996 GEIS through its statement that the consequences of terrorist-act-initiated incidents would be "no worse than" those already considered in the ER and the GEIS resulting from other initiators. While the *consequences* may be no worse, that fact has no bearing upon the potential cost-benefit analysis of various mechanisms to *prevent* such a release by a terrorist attack, and possibly none upon mechanisms that might *ameliorate* its consequences. The referenced findings of the 1996 GEIS regard only the consequences; thus we do not find that this contention challenges the generic finding of the NRC.

NEPA: TERRORIST THREATS CONSIDERED IN AGENCY REVIEW

SEVERE ACCIDENT MITIGATION ALTERNATIVES (SAMA) ANALYSIS: REQUIREMENTS

RULES OF PRACTICE: REFERRAL OF RULING

EC-4 raises the questions of: (a) whether because of the quantitative nature of the cost-benefit analyses which are the end product of SAMA analyses, a quantitative, as opposed to qualitative, analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary; (b) how Staff should approach such an analysis when the data are, at best, sparse; and (c) the extent to which, and manner by which, SAMA analyses should consider matters and mechanisms already addressed by the NRC's Design Basis Threat programs. In our view, these are novel legal or policy issues that would benefit from Commission review. *See* 10 C.F.R. § 2.323(f)(1).

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The NRC is not barred from considering a licensee's past and continuing managerial and performance problems when it determines, under 10 C.F.R. § 54.29(a), whether the licensee has demonstrated that actions "will be taken"

with respect to managing the effects of aging during the period of extended operation.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The potential scope of adjudicatory hearings in license renewal proceedings is the same as the scope of the Staff's review. If the ability of an applicant to adequately implement an aging management program cannot be raised in an adjudicatory proceeding, then, likewise, it cannot be considered by the Staff when it decides whether to allow the applicant to operate a nuclear power plant for an additional 20 years.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

Under the limited circumstances of this case, the NRC's determination under 10 C.F.R. § 54.29(a) can be informed by the applicant's past performance that involved an alleged ongoing pattern of difficulty in managing current activities that have a direct link to the applicant's ability to implement the aging management program during the proposed license renewal period.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The plain language of 10 C.F.R. § 54.29(a) requires that the NRC make predictive determinations about what the applicant will actually do in the future. The Commission must conclude that there is reasonable assurance that the required aging management activities have already "been taken" or "will be taken." Identification of the needed actions, such as in an aging management program, is not enough. There must be assurance that the actions will actually be taken and "will continue to be conducted" in accordance with the current licensing basis during the period of extended operation.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

Nothing in 10 C.F.R. § 54.29(a) says that a licensee's current noncompliance history or patterns of management problems or difficulties cannot be considered.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The regulation does not say that the only thing the NRC can consider in making the 10 C.F.R. § 54.29(a) determination is the adequacy of the paperwork, i.e., the aging management program that states the applicant's plan for satisfying the

regulation. Neither 10 C.F.R. § 54.29 nor any of the Part 54 regulations ever use the terms "aging management program," "aging management plan," or "AMP." The regulation does not say — "submit an adequate AMP."

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

Part 54 requires that the applicant demonstrate that the "effects of aging will be adequately managed." 10 C.F.R. § 54.21(a)(3). The NRC must determine, to a reasonable assurance, that such a demonstration has been made. 10 C.F.R. § 54.29(a).

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The Commission has rejected the proposition that a "license renewal proceeding is *per se* an inappropriate forum" to consider the adequacy of the applicant's current or past managerial performance. *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995).

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The Commission has stated that "[i]n determining whether . . . to renew a license[ ], the Commission makes what is in effect predictive findings about the qualifications of an applicant. The past performance of management may help indicate whether a licensee will comply with agency standards. . . . Of course, the past performance must bear on the licensing action [renewal] currently under review." *Georgia Tech,* CLI-95-12, 42 NRC at 120 (footnotes omitted).

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

It is not credible for the applicant to argue, in the face of three current and consecutive NRC inspections finding numerous violations at the applicant's facility and a continuing "adverse trend" in such violations, that it is "unsupported speculation" that the applicant will violate the NRC requirements in the future. These inspections rebut the assumption of compliance.

LICENSE RENEWAL APPLICATIONS: ISSUES FOR CONSIDERATION

The Commission's general policy of not assuming that an applicant will violate NRC regulations is rebuttable. Past performance, such as NRC inspection reports

of current and continuing patterns of violations, can undermine and rebut that assumption.

LICENSE RENEWAL APPLICATIONS: ISSUES FOR CONSIDERATION

In the context of 10 C.F.R. § 54.29, we reject the notion that the presumption of compliance is irrebutable or that, despite evidence to the contrary, the NRC must blindly assume that an applicant will always comply and/or will always be able to adequately implement future programs under any and all circumstances. This is especially so if there is a narrow and specific concern that has existed for years and continues to exist regarding the ability of a license renewal applicant to properly understand the very same CLB that it must comply with during the PEO.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

Trivial and random noncompliances that have no link to the essential elements of implementing an aging management program will not support the admission of a contention alleging that the applicant has failed to demonstrate, as required by 10 C.F.R. § 54.29(a), a reasonable assurance that it will in fact (as opposed to on paper) adequately manage aging during the period of extended operations in the PEO.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

Whether or not the current instances of noncompliance are of sufficient magnitude and pervasiveness to support a finding of no reasonable assurance" under 10 C.F.R. § 54.29(a) is a merits determination. Here we are only concerned with whether the contention is within the scope of this license renewal proceeding and admissible.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The absence of perfect compliance does not rebut the presumption of compliance or support admission of a contention that the application does not satisfy 10 C.F.R. § 54.29(a). But a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment will.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

Asserting that an applicant has not demonstrated a reasonable assurance that it

will actually be able to adequately manage aging during the period of extended operation, as is required by 10 C.F.R. § 54.29(a) is not the same as asserting that the applicant does not meet the "character" test of Atomic Energy Act § 182. Contention TC-1 is not an attack on the character or integrity of the applicant.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

A narrow and specific contention that alleges facts, with supporting documentation, of a longstanding and continuing pattern of noncompliance or management difficulties, which are reasonably linked to whether the licensee will actually be able to adequately "manage aging" in accordance with the current licensing basis during the PEO, can be an admissible contention under 10 C.F.R. § 54.29(a).

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

Nothing in 10 C.F.R. § 54.30, "Matters not subject to a renewal review," bars a contention that the applicant has failed to demonstrate that it will actually be able to adequately manage aging in the future, as required by 10 C.F.R. § 54.29. Section 54.30(a) says that a licensee is obliged to correct current noncompliances now. Section 54.30(b) says that whether or not the licensee complies with 10 C.F.R. § 54.30(a) is not within the scope of license renewal review. Neither provision prohibits a contention that challenges the applicant's demonstration regarding its future compliance during the license renewal period.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The fact that current noncompliances are used as evidence to support the allegation that the applicant will not be able to manage aging in the future does not render the contention outside of the scope of 10 C.F.R. § 54.29 nor does it violate 10 C.F.R. § 54.30.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The concept of "age-related degradation unique to license renewal" or "AR-DUTL" was deleted from the license renewal regulations in 1995 because the NRC realized that aging is a continuous process and the aging in question does not need to be *unique* to the period of extended operation in order to be relevant to 10 C.F.R. § 54.29.

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

The current regulatory process, and compliance with the CLB, is not the primary focus of license renewal. We note, however, that there are exceptions. For example, the Commission states: "the portion of the CLB that can be impacted by the detrimental effects of aging is limited to the design bases aspects of the CLB." Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,475 (May 8, 1995).

LICENSE RENEWAL APPLICATIONS: PART 54 REQUIREMENTS

An ongoing pattern of management failures and/or past or current violations can be the subject of an admissible contention under 10 C.F.R. § 54.29(a) because the scope of adjudicatory review and the scope of the Staff's review are the same, see *Turkey Point,* CLI-01-17, 54 NRC at 10, and the Staff is not forbidden from considering a company's past performance when evaluating its license renewal application.

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES

As required by 10 C.F.R. § 2.310, upon admission of a contention, the Board must identify the specific hearing procedures to be used.

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES; CROSS-EXAMINATION

The standard for allowing the parties to conduct cross-examination is the same under Subparts G and L, to wit — the Administrative Procedure Act (APA) standard for cross-examination in formal administrative proceedings as set forth in 5 U.S.C. § 556(d) ("A party is entitled . . . to conduct such cross examination as may be required for a full and true disclosure of the facts."). *See Citizens Awareness Network, Inc. v. NRC,* 391 F.3d 338, 351 (1st Cir. 2004); *see also* Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2195-96 (Jan. 14, 2004).

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES; CROSS-EXAMINATION

APA § 556(d), which is the standard for allowing cross-examination under Subparts G and L, is a liberal standard, but does not provide an absolute right to conduct cross-examination. *Seacoast Anti-Pollution League v. Costle,* 572 F.2d 872, 880 (1st Cir. 1978).

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES; CROSS-EXAMINATION

Even though the APA § 556(d) substantive standard is the same under Subparts G and L, NRC's procedures differ. Cross-examination occurs virtually automatically in Subpart G hearings, subject to normal judicial management and the requirement to file a cross-examination plan. *See* 10 C.F.R. §§ 2.319, 2.711(c). In contrast, under Subpart L, a party seeking to conduct cross-examination must file a written motion and obtain leave of the Board. 10 C.F.R. § 2.1204(b).

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES

The Board determines which hearing procedure to use on a contention-by-contention basis. *See, e.g.,* 10 C.F.R. §§ 2.309(g), 2.310(d)

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES

Section 2.310(b)-(h) enumerates specific situations where a certain procedure is mandated or available. If a contention does not fall within one of those categories, then proceedings *may* be conducted under Subpart L. 10 C.F.R. § 2.310(a). Thus, if no particular procedure is compelled, the Board must exercise its discretion and select the hearing procedure most appropriate for the newly admitted contentions.

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES

The parties have not provided the Board with any showing that a particular procedure is compelled or that the Board should exercise its discretion to use a procedure other than Subpart L on any of the contentions. Therefore the Board exercises its discretion and selects Subpart L as the appropriate hearing procedure for the four admitted contentions.

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MEMORANDUM AND ORDER

(Rulings on Standing, Contention Admissibility, Waiver Petition, and Selection of Hearing Procedures)

This case arises from an application by Pacific Gas & Electric Company (PG&E) to the Nuclear Regulatory Commission (NRC) for renewal of licenses authorizing operation of its two nuclear power reactors at the Diablo Canyon

Nuclear Power Plant (DCNPP) located near San Luis Obispo, California.[1] The proposed renewal would authorize PG&E to operate the DCNPP reactors for an additional 20 years after the current licenses expire in 2024 and 2025. 75 Fed. Reg. at 3493. The San Luis Obispo Mothers for Peace (SLOMFP), an organization whose members live and work within 50 miles of DCNPP, has challenged the application by filing a petition to intervene and request for a hearing.[2]

For the reasons set forth below, the Board concludes that SLOMFP has standing and has raised at least one admissible contention. Therefore, the Board grants SLOMFP's petition to intervene and request for hearing pursuant to 10 C.F.R. § 2.309(a).

Although the statement and details of each contention are provided later, the following summarizes the results of today's decision. The Board unanimously concludes that Contentions EC-1, EC-2, and EC-4, as narrowed by the Board, are admissible. With regard to Contention EC-2 (as narrowed) we also conclude that SLOMFP has provided a *prima facie* showing that the relevant regulations should be waived. 10 C.F.R. § 2.335(b)-(d). Therefore, the Commission must now decide whether the waiver should indeed be granted. 10 C.F.R. § 2.335(d). With regard to Contention EC-4 (as narrowed), we are referring it to the Commission pursuant to 10 C.F.R. § 2.323(f)(1) because it involves novel issues of law. With regard to Contention TC-1 (as narrowed) a majority of the Board (Judges Karlin and Trikouros) conclude that it is admissible. Thus, it is admitted. Judge Abramson has filed a dissent from this ruling. Finally, with regard to Contention EC-3, the Board unanimously concludes that SLOMFP failed to provide a *prima facie* showing that the relevant regulations should be waived, and therefore the Board will not consider it. 10 C.F.R. § 2.335(c). A list of the admitted contentions, as narrowed by this decision, is attached hereto as Appendix A.

I. BACKGROUND

On November 23, 2009, PG&E applied to the NRC to renew PG&E's licenses (DPR-80 and DPR-82) to operate its two nuclear power reactors, DCNPP Units 1 and 2. 75 Fed. Reg. at 3493. The current licenses expire on November 2, 2024, and August 26, 2025, respectively. *Id.* The renewed licenses would authorize operation for an additional 20 years beyond those dates. *Id.*

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[1] Notice of Acceptance for Docketing of the Application, Notice of Opportunity for Hearing for Facility Operating License Nos. DPR-80 and DPR-82 for an Additional 20-Year Period; Pacific Gas & Electric Company, Diablo Canyon Nuclear Power Plant, Units 1 and 2, 75 Fed. Reg. 3493 (Jan. 21, 2010).

[2] Request for Hearing and Petition to Intervene by San Luis Obispo Mothers for Peace (Mar. 22, 2010) (Petition).

PG&E's application was submitted pursuant to NRC's license renewal regulations in 10 C.F.R. Part 54. *Id.* The general requirements regarding the contents of a license renewal application are set forth in 10 C.F.R. §§ 54.19-54.23. The environmental requirements regarding the contents of a license renewal application are set forth in 10 C.F.R. § 51.53(c). The standard for issuance of a renewed license is set forth in 10 C.F.R. § 54.29.

On January 21, 2010, the NRC published a notice of opportunity for hearing in the DNCPP license renewal proceeding in the *Federal Register.* 75 Fed. Reg. at 3493. On March 22, 2010, SLOMFP filed its petition challenging the license renewal. *See supra* note 2. The Petition contained five contentions — one safety (TC-1) and four environmental (EC-1 through EC-4) — and was accompanied by a petition for a waiver of certain portions of 10 C.F.R. Part 51, Appendix B, and 10 C.F.R. § 51.53(c)(2) with regard to Contentions EC-2 and EC-3.[3]

On April 16, 2010, PG&E and the NRC Staff filed answers to the Petition, and the NRC Staff filed a separate response to the waiver petition.[4] SLOMFP filed its reply on April 23, 2010.[5] On April 8, 2010, the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel appointed this Board to preside over the adjudicatory proceeding concerning PG&E's license renewal application for DCNPP Units 1 and 2.[6]

In addition to its April 23 reply regarding the five contentions, SLOMFP filed a motion for leave to reply to PG&E's and the NRC Staff's responses to SLOMFP's waiver petition.[7] The NRC Staff and PG&E opposed the motion.[8] On

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[3] San Luis Obispo Mothers for Peace's Petition for Waiver of 10 C.F.R. Part 51 Subpart A Appendix B and 10 C.F.R. § 51.53(c)(2) (Mar. 22, 2010) (Waiver Petition); Declaration by Diane Curran in Support of Petition for Waiver of 10 C.F.R. Part 51 Subpart A Appendix B and 10 C.F.R. § 51.53(c)(2) (Mar. 22, 2010) (Curran Decl.).

[4] Applicant's Answer to Petition to Intervene and Response to Requests for Waivers (Apr. 16, 2010) (PG&E Answer); NRC Staff's Answer to the San Luis Obispo Mothers for Peace Request for Hearing and Petition to Intervene (Apr. 16, 2010) (Staff Answer); NRC Staff's Response to the Petition for Waiver of Commission Regulations Filed by San Luis Obispo Mothers for Peace (Apr. 16, 2010) (Staff Waiver Response).

[5] San Luis Obispo Mothers for Peace's Reply to Oppositions to Request for Hearing, Petition to Intervene and Waiver Petition Regarding Diablo Canyon License Renewal Application (Apr. 23, 2010) (Reply).

[6] Pacific Gas & Electric Co., Diablo Canyon Units 1 and 2, Establishment of Atomic Safety and Licensing Board (Apr. 8, 2010); 75 Fed. Reg. 20,010 (Apr. 16, 2010).

[7] San Luis Obispo Mothers for Peace's Motion for Leave to Reply to Oppositions Waiver Petition (Apr. 23, 2010).

[8] NRC Staff's Response to San Luis Obispo Mothers for Peace's Motion for Leave to Reply to Oppositions to Waiver Petition (Apr. 29, 2010); Applicant's Response to Motion for Leave to Reply to Oppositions to Waiver Petition (May 3, 2010).

May 4, 2010, the Board denied SLOMFP's motion for reply.[9] However, in view of PG&E's and the NRC Staff's reliance on the *Millstone* case[10] in their responses to SLOMFP's waiver petition, the Board requested that SLOMFP file a brief addressing whether, and how, the *Millstone* ruling applies to its waiver petition. May 4, 2010 Order at 1-2. Accordingly, on May 13, 2010, SLOMFP filed a brief addressing the *Millstone* case.[11]

On May 26, 2010, the Board heard oral argument related to the admissibility of the proposed contentions from SLOMFP, PG&E, and the NRC Staff (the Parties). The oral argument was conducted in San Luis Obispo, California.

In order for a request for hearing and petition to intervene to be granted, a petitioner must (1) establish that it has standing and (2) propose at least one "admissible" contention. 10 C.F.R. § 2.309(a). We address each of these two requirements in turn.

II. STANDING

A. Standards Governing Standing

Under NRC regulations, a petitioner must demonstrate that it has standing to intervene in the licensing process. 10 C.F.R. § 2.309(a). The information required to show standing includes (1) the nature of the petitioner's right under a relevant statute 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 might be issued in the proceeding on the petitioner's interest. 10 C.F.R. § 2.309(d)(1)(ii)-(iv). Judicial concepts of standing are generally followed in NRC proceedings.[12] These require that a petitioner establish that "(1) it has suffered a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statute; (2) that the injury can fairly be traced to the challenged action; and (3) that the injury is likely to be redressed by a favorable decision." *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996).

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[9] Licensing Board Order (Denying Motion for Leave to File a Reply to Waiver Petition and Directing the Filing of a Brief) (May 4, 2010) (unpublished) (May 4, 2010 Order).

[10] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005).

[11] San Luis Obispo Mothers for Peace's Brief Regarding Waiver Standard (May 13, 2010) (SLOMFP Waiver Brief).

[12] *Nuclear Management Co., LLC* (Monticello Nuclear Generating Plant), CLI-06-6, 63 NRC 161, 163 (2006).

In the context of a license renewal application, the Atomic Energy Act of 1954 (42 U.S.C. §§ 2011-2213) (AEA) and the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4335) (NEPA) are the primary statutes establishing the appropriate "zone of interests" that the petitioners may assert. Once parties demonstrate that they have standing, the parties "will then be free to assert any contention, which, if proved, will afford them the relief they seek." *Yankee Atomic,* CLI-96-1, 43 NRC at 6. Thus, for example, if a petitioner is seeking the denial of the proposed license renewal, then once it has standing, it can pursue any other issue that, unless corrected, would prevent the issuance of the renewed license.

In determining whether a petitioner has established standing, the Commission has ruled that Boards may "construe the petition in favor of the petitioner."[13] In addition, in proceedings involving nuclear power reactors, the Commission has recognized a proximity presumption, whereby a petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and redressability if the petitioner lives within 50 miles of the proposed facility.[14]

If the petitioner is an organization seeking to intervene in an NRC proceeding in its own right, it must allege that the challenged action will cause a cognizable injury to its interests or to the interests of its members.[15] Alternatively, when seeking to intervene in a representational capacity, as is the case here, an organization must identify (by name and address) at least one member who is affected by the licensing action and who qualifies for standing in his or her own right, and show that the member has authorized the organization to intervene on his or her behalf. *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000).

B. Ruling on Standing

Neither PG&E nor the NRC Staff challenges SLOMFP's standing. In fact, the NRC Staff concedes that SLOMFP has demonstrated standing. Staff Answer at 5.

SLOMFP identified four members who live within 50 miles of DCNPP. Petition at 1-2. By virtue of their proximity to the site, these members would have

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

[14] *Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915-17 (2009); *see also, e.g., Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989) (observing that the presumption applies in proceedings for nuclear power plant "construction permits, operating licenses, or significant amendments thereto").

[15] *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 102 n.10 (1994).

standing to participate in this proceeding in their own right. Each member has also submitted a declaration authorizing SLOMFP to represent her interests in this proceeding.[16] Therefore, we conclude that SLOMFP meets the requirements for representational standing.

III. STANDARDS GOVERNING CONTENTION ADMISSIBILITY

In order to become a party in an adjudicatory proceeding, a petitioner must submit at least one admissible contention. 10 C.F.R. § 2.309(a). The six basic requirements for an admissible contention are set forth in 10 C.F.R. § 2.309(f)(1)(i)-(vi), and can be summarized as follows:

(i) *Specificity*: Provide a specific statement of the issue of law or fact to be raised or controverted;

(ii) *Brief Explanation*: Provide a brief explanation of the basis for the contention;

(iii) *Within Scope*: Demonstrate that the issue raised in the contention is within the scope of the proceeding;

(iv) *Materiality*: 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) *Concise Statement of Alleged Facts or Expert Opinion*: 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) *Genuine Dispute*: Provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain

[16] *See* Petition, Exh. 1A, Declaration of Elizabeth Apfelberg ¶ 5 (Mar. 9, 2010); Petition, Exh. 1B, Declaration of Elaine E. Holder ¶ 5 (Mar. 8, 2010); Petition, Exh. 1C, Declaration of Lucy Jane Swanson ¶ 5 (Mar. 9, 2010); Petition, Exh. 1D, Declaration of Jill ZamEk ¶ 5 (Mar. 11, 2010).

information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

See 10 C.F.R. § 2.309(f)(1).

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." Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004). The Commission has stated that "the hearing process [is only intended for] issue[s] that [are] appropriate for, and susceptible to, resolution in an NRC hearing." *Id.* "While a board may view a petitioner's supporting information in a light favorable to the petitioner . . . the petitioner (not the board) [is required] to supply all of the required elements for a valid intervention petition."[17] The rules on contention admissibility are "strict by design."[18] Further, absent a waiver, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications. 10 C.F.R. § 2.335(a). Failure to comply with any of these requirements is grounds for not admitting a contention. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 636 (2004).

IV. *PRIMA FACIE* CASE FOR WAIVER

In addition to the six basic requirements for an admissible contention, no contention can be admitted if it attacks an NRC rule or regulation *unless* the Commission itself agrees to waive that rule or regulation. "Except as provided in [the waiver regulation] no rule or regulation of the Commission, or any provision thereof . . . is subject to attack by way of . . . any adjudicatory proceeding." 10 C.F.R. § 2.335(a). In this proceeding, two of the proposed contentions require such waivers. EC-2 and EC-3 assert that certain specified environmental impacts of the renewal should not be handled under NRC's generic regulations for such impacts (*i.e.,* 10 C.F.R. Part 2, Subpart A, Appendix B and 10 C.F.R. § 51.53(c)(2)), but should instead be addressed on a site-specific basis. Petition at 16-19, 20-21. SLOMFP acknowledges that a waiver from the Commission is necessary in order for EC-2 and EC-3 to be admitted. *Id.* at 19, 21; Reply at 12; Tr. at 195-96, 281. Thus, SLOMFP has submitted a waiver petition. Waiver Petition at 1.

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[17] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009).

[18] *See, e.g., Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 233 (2008); *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 (2001); *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35 (1999).

The regulation states that the "*sole* ground" for a "waiver or exception" from a regulation is that "special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted." 10 C.F.R. § 2.335(b) (emphasis added). The petition for waiver must be accompanied by an affidavit that identifies the specific aspects of the subject matter of the proceeding to which the application of the regulation would not serve the purposes of the regulation and that states with particularity the special circumstances alleged to justify the waiver or exception. *Id.*

Despite the foregoing regulation, the Commission has stated that *four factors* must exist in order for a waiver to be granted. In *Millstone,* the Commission stated

> For us to grant an exemption or waiver . . . we must first conclude under our regulations and case law that (i) the rule's strict application "would not serve the purposes for which [it] was adopted"; (ii) the movant has alleged "special circumstances" that were "not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived"; (iii) those circumstances are "unique" to the facility rather than "common to a large class of facilities"; and (iv) a waiver of the regulation is necessary to reach a "significant safety problem."

Millstone, 62 NRC at 559-60 (internal citations omitted).

The determination as to whether the foregoing criteria are met and a waiver is warranted is the sole province of the Commission. 10 C.F.R. § 2.335(d). The Board's role is limited to deciding whether the petitioner has made a *prima facie* showing concerning the foregoing criteria. 10 C.F.R. § 2.335(c), (d). This is a very limited role. If the Board rules that no *prima facie* showing has been made, then the Board "may not further consider the matter." 10 C.F.R. § 2.335(c). If the Board concludes that the petitioner has made a *prima facie* showing of special circumstances, then the Board "shall . . . certify the matter directly to the Commission," which may grant or deny the waiver or make whatever determination it deems appropriate. 10 C.F.R. § 2.335(d).

A *prima facie* showing is not a ruling on the merits, i.e., that special circumstances indeed exist and a waiver is warranted. Instead, a *prima facie* showing merely requires the presentation of enough information to allow the Board to infer (absent disproof) that special circumstances exist.[19]

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[19] *Black's Law Dictionary* defines "*prima facie* case" as "1. The establishment of a legally required rebuttable presumption. 2. A party's production of enough evidence to allow the fact-trier to infer the fact at issue and rule in the party's favor." *Black's Law Dictionary* 1310 (9th ed. 2009). This is consistent with Commission case law. *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power

(Continued)

V. RULING ON CONTENTIONS

A. Contention EC-1

1. Statement of Contention EC-1

Proposed Contention EC-1, entitled "Failure of SAMA Analysis to Include Complete Information About Potential Environmental Impacts of Earthquakes and Related SAMAs," states:

> PG&E's Severe Accident Mitigation Alternatives ("SAMA") analysis fails to satisfy 40 C.F.R. § 1502.22 because it is not based on complete information that is necessary for an understanding of seismic risks to the Diablo Canyon nuclear power plant and because PG&E has failed to acknowledge the absence of the information or demonstrated that the information is too costly to obtain. As a result of PG&E's failure to use complete information, the SAMA analysis does not satisfy the requirements of the National Environmental Policy Act ("NEPA") for consideration of alternatives (*see Idaho Conservation League v. Mumma,* 956 F.2d 1508, 1519-20 (9th Cir. 1992)) or NRC implementing regulation 10 C.F.R. § 51.53(c)(3)(ii)(L).

Petition at 8.

2. Arguments Regarding Contention EC-1

This contention focuses on a newly discovered earthquake fault located approximately 600 meters from the DCNPP reactors.[20] It appears that on November 14, 2008, PG&E informed NRC that it had identified "a zone of seismicity that may indicate a previously unknown fault located offshore" of the DCNPP.[21] SLOMFP states that PG&E reported that this fault (which came to be known as the "Shoreline Fault") was identified in the course of a "collaborative research program" by PG&E and the United States Geological Survey (USGS). Petition at 9. SLOMFP asserts that PG&E and NRC both "immediately took actions to

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Plant, Units 1 and 2), ALAB-653, 16 NRC 55, 72 (1982) (*Diablo Canyon*) ("Prima facie evidence must be legally sufficient to establish a fact or case unless disproved."); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 22 (1988) (*Seabrook*) ("We have found that a prima facie showing within the meaning of 10 C.F.R. § 2.758(d) is one that is 'legally sufficient to establish a fact or case unless disproved.'").

[20] Memorandum from Alan Wang, Project Manager, Plant Licensing Branch IV, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation, NRC, "Summary of January 5, 2010, Meeting with Pacific Gas and Electric Company Regarding Shoreline Fault" (Jan. 20, 2010) at 1 (Meeting Summary).

[21] Petition at 9 (citing NRC, Research Information Letter 09-001: Preliminary Deterministic Analysis of Seismic Hazard at Diablo Canyon Nuclear Power Plant from Newly Identified "Shoreline Fault" (Apr. 8, 2009) at 10-11 (RIL-09-001)).

address the significance of the newly discovered fault" including commencing a deterministic assessment of the risk based on preliminary information. *Id.* In addition, SLOMFP says, PG&E worked with the USGS to "reallocate resources" from its preexisting Long Term Seismic Program (LTSP) to characterize the Shoreline Fault. *Id.* at 9-10. SLOMFP further asserts that PG&E developed an action plan that included (1) studying and issuing a report on some issues by the fourth quarter of 2010, and (2) performing an "updated evaluation of the seismic hazard at DCPP . . . to be completed in 2011." *Id.* at 10 (internal quotes omitted).

SLOMFP adds that, in April 2009, the NRC Staff issued regulatory information letter (RIL)-09-001 describing "PG&E's and the Staff's Preliminary Deterministic Analysis of the Shoreline Fault." *Id.* (citing RIL-09-001 at 1). The RIL recounts that PG&E had made a "preliminary assessment that the hazard potential of the Shoreline Fault is bounded by the current review ground motion spectrum for the facility." RIL-09-001 at 1. In the RIL, the NRC Staff agreed with this preliminary assessment, stating, "the NRC staff's assessment indicates that the best estimate 84th percentile deterministic seismic-loading levels predicted for a maximum magnitude earthquake on the Shoreline Fault are slightly below those levels for which the plant was previously analyzed" in the DCNPP LTSP. *Id.* at 10.

SLOMFP emphasizes that NRC normally uses a *probabilistic* risk analysis for such hazards (because it is more accurate), but that in this case NRC did a preliminary *deterministic* analysis, with the expressed intent to perform a probabilistic risk analysis later, as soon as the ongoing PG&E-USGS Collaborative Research and Development Agreement (CRADA) investigation produces the "expected . . . significant new information." Petition at 10-11. SLOMFP quotes the NRC report as saying:

> The CRADA program is expected to provide significant new information regarding the larger tectonic picture of this area. The NRC staff's initial assessment was deterministic, consistent with the design basis of the facility. Currently, probabilistic methods are available to more accurately characterize the hazard of the region surrounding the site. Further, regional moment balancing could also more accurately characterize the regional hazard, both independently and as a part of a probabilistic hazard assessment. As more information becomes available (such as the slip rate of the potential Shoreline Fault or any additional information about the Hosgri Fault), the NRC staff expects to evaluate the regional seismic hazard and perform a probabilistic study, when the available data is sufficient.

Id. at 11 (quoting RIL-09-001 at 10-11). SLOMFP also asserts that the RIL is "rife with disclaimers about the preliminary nature of the information relied on." *Id.* at 11 n.3.

SLOMFP next notes that, in January 2010, NRC and PG&E held a status conference regarding the efforts to estimate and constrain the newly identified

Shoreline Fault. *Id.* at 11-12. NRC's memorandum summarizing the meeting reports that

> PG&E stated that the Shoreline fault studies were accelerated and the current schedule is to have the Shoreline fault study completed by the end of 2010. The rest of the tectonic modeling for the central California region is due to be complete in 2012. Barbara Byron from the California Energy Commission (CEC) asked if three-dimensional imaging studies as recommended by the CEC are going to be performed. PG&E stated it is looking into the funding for this project and, if funded, would extend the central California study until 2013.

Meeting Summary at 2.

SLOMFP notes that PG&E's severe accident mitigation alternatives (SAMA) analysis acknowledges that "'both fire and seismic contributors' are 'disproportionately dominant when compared to all external events.'"[22] But, says SLOMPF, the SAMA analysis never even mentions the Shoreline Fault. Petition at 13. SLOMFP acknowledges that the "potential" Shoreline Fault and the CRADA study are mentioned elsewhere in PG&E's environmental report (ER) but maintains that the ER "never acknowledges that the collaborative study was accelerated and re-focused on the Shoreline Fault or that PG&E has an NRC-approved Action Plan for completing the study." *Id.*

Thus, SLOMFP argues, PG&E's SAMA analysis is "inadequate to satisfy NEPA or its implementing regulations because PG&E's consideration of severe accident mitigation alternatives is based on incomplete information about earthquake risks at Diablo Canyon, and because PG&E fails to acknowledge that it can obtain complete information by simply waiting for the completion of the information." *Id.* at 14. PG&E cannot rely on the preliminary deterministic study in its SAMA analysis, says SLOMFP, because probabilistic risk assessment (PRA) is the Commission's "'accepted and standard practice in SAMA analyses.'"[23] SLOMFP focuses on Council on Environmental Quality (CEQ) regulation 40 C.F.R. § 1502.22 and asserts that "information sufficient to conduct a probabilistic analysis of the risks posed by the Shoreline Fault is 'essential' to the SAMA." *Id.* SLOMFP says that the cost of obtaining this information is not exorbitant, because it merely involves waiting for the completion of current studies that will be completed in 2010, 2011, and 2013 at the latest. *Id.* at 14-15. "Given that 2013 is more than 10 years before PG&E's licenses are due to expire in 2024 and 2025,

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[22] Petition at 12 (quoting PG&E, Diablo Canyon Power Plant License Renewal Application, Appendix E, Applicant's Environmental Report — Operating License Renewal Stage (Nov. 23, 2009) at F-65 (ER)).

[23] *Id.* at 14 (quoting *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 340 (2006)).

PG&E has ample time to conduct a SAMA analysis that is based on complete seismic information." *Id.* at 15. SLOMFP points to a letter from the California Public Utilities Commission (CPUC), which states that CPUC cannot conduct its license extension review for DCNPP without additional information on seismic risks, as support for NRC waiting for the completion of the seismic studies as well.[24]

PG&E interprets Contention EC-1 as asserting that its "SAMA analysis is necessarily incomplete so long as PG&E and the NRC continue their assessment of . . . the Shoreline Fault." PG&E Answer at 13-14. PG&E then argues that the contention is an "impermissible challenge to the [current licensing basis (CLB)], specifically to the adequacy of the Diablo Canyon seismic design." *Id.* at 14. PG&E asserts that "challenges to the CLB are outside the scope" of a license renewal proceeding.[25]

PG&E asserts that EC-1 is similar to contentions recently rejected by the *Indian Point* Board on the ground that the petitioners failed to explain why more recent information regarding earthquakes would "make a material change in the conclusions of the seismic SAMA" and failed to suggest feasible alternatives to address new risks or estimate costs of additional measures.[26] Specifically, PG&E notes that its analysis of SAMAs related to seismic risk included a sensitivity analysis that would be bounding even if seismic risk doubles and asserts that SLOMFP has not offered factual or expert support regarding either the expected increase in seismic risk from the Shoreline Fault or the costs and benefits of additional SAMAs. *Id.* at 17-18.

PG&E also argues that NRC is not bound by the CEQ regulation, 40 C.F.R. § 1502.22. *Id.* at 18. Even if it were, PG&E notes that 40 C.F.R. § 1502.22 only applies if the incomplete information "is *essential* to a reasoned choice among alternatives." *Id.* at 18-19 (quoting 40 C.F.R. § 1502.22(a)) (emphasis in PG&E Answer). PG&E asserts that SLOMFP has not shown that information regarding the Shoreline Fault is essential to the choice among alternatives because it has not provided a basis for concluding that the DCNPP SAMA analysis would change if the Shoreline Fault were considered, particularly in light of a conclusion by the NRC Staff that another fault near the site, the Hosgri Fault, bounds the Shoreline Fault. *Id.* at 19.

PG&E adds that "there is no basis to suspend the proceeding or the license renewal review" because "the nature of scientific research is that it is always

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[24] *Id.* at 15 & Exh. 2, Letter from Michael R. Peevey, President, CPUC, to Peter A. Darbee, President & Chief Executive Officer, PG&E (June 25, 2009) (Peevey Letter).

[25] PG&E Answer at 14 (citing *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8 (2001) (*Turkey Point*)).

[26] *Id.* at 15 (citing *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 109-10 (2008) (*Indian Point*)).

ongoing" and because there "will always be more data that could be gathered." *Id.* at 20. PG&E argues that the issue of the Shoreline Fault is already being addressed under the ongoing regulatory process pursuant to the current license. *Id.* Finally, PG&E states that, to the extent that EC-1 asserts a violation of California law, it is outside the scope of an NRC proceeding. *Id.* at 21.

The NRC Staff supports the admission of EC-1 to the extent that it asserts that PG&E's SAMA analysis omits a discussion of the Shoreline Fault. Staff Answer at 28. At the outset, the NRC Staff notes that DCNPP has a "unique and complex seismic design and licensing basis." *Id.* at 27. Specifically, the current license for DCNPP Unit 1 includes condition 2.C(7), under which PG&E developed the Long Term Seismic Program (LTSP) previously discussed above. *Id.* As part of the LTSP, PG&E performed a full seismic reevaluation of the DCNPP between 1985 and 1988. *Id.* The Staff also notes that the "safe shutdown earthquake (SSE) ground motion is based on the assumption of a magnitude 7.5 earthquake on the Hosgri Fault, which is located 5 km (3 mi) from the DCNPP." *Id.*

The Staff states that it "has no objection to admission of a limited part of proposed Contention EC-1" and that SLOMFP is "correct that the SAMA analysis omits information regarding the newly discovered Shoreline Fault." *Id.* at 28.

The NRC Staff states that its own SAMA review will require additional information regarding the fault:

> The Staff believes that, as to the discussion of the Shoreline Fault, the following has been omitted from the Environmental Report:
>
> (1) The potential impact of the Shoreline Fault on the seismic core damage frequency (CDF) and off-site consequences.
>
> (2) If the revised CDF estimate and consequences are higher, how the use of the higher CDF affects the SAMA analysis.
>
> (3) The Applicant's search for any equipment or structure failures not previously identified that relate specifically to mitigating the potential risk associated with the Shoreline Fault.

Id. at 29. The Staff views EC-1[27] as asserting omissions and proposes that the Board admit the following modified version of EC-1:

[27] The NRC Staff states that EC-1 reads as follows: "Failure of SAMA Analysis to Include Complete Information about Potential Environmental Impacts of Earthquakes and Related SAMAs." Staff Answer at 26. However, the foregoing quote is simply the heading of the portion of the Petition dealing with EC-1. The actual statement of EC-1 is quoted *supra. See* Petition at 8.

> The SAMA evaluation contained in the Environmental Report, at Attachment F to Appendix D omits a discussion of the impact, if any, the "Shoreline Fault" might have on the SAMA evaluation.

Id.

The Staff adds that "to the extent EC-1 contends that the ER must await the 'Shoreline Fault' study, EC-1 is inadmissible for lack of basis." Staff Answer at 30. The Staff says that PG&E "may be able to complete its analyses based on the information that is available today." *Id.* It adds that if PG&E "does not have a revised seismic PRA, a sensitivity analysis using a best estimate or conservative multiplier on the CDF would be sufficient for the purpose of completing the SAMA analysis." *Id.* The Staff asserts that "a conservative estimate of the impacts from the Shoreline Fault would suffice if it can be shown that this approximate analysis would serve to identify any potentially cost beneficial SAMAs that might be identified using a more precise estimate of the impacts from the Shoreline Fault on DCNPP." *Id.*

The Staff argues that SLOMFP has not shown how any of the documents it cites demonstrate why waiting for the results of those studies is necessary for an adequate SAMA analysis. *Id.* at 32-33. The Staff rejects the proposition that the SAMA analysis should include the information being gathered in the current and ongoing seismic studies cited by SLOMFP, quoting the Commission as stating, "while there 'will always be more data that could be gathered,' agencies 'must have some discretion to draw the line and move forward with decisionmaking.'" *Id.* at 30, 33 (citing *Energy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 315 (2010)). The Staff asserts that SLOMFP has failed to offer any "facts or expert opinion in support of its rationale that waiting for a further study of this new fault is necessary or to demonstrate how such a report would change the SAMA analysis." *Id.* at 33. Finally, the Staff asserts that the fact that the CPUC may require additional studies under California law has no bearing on this proceeding. *Id.*

In its Reply, SLOMFP argues that the "only major disagreement that the Staff seems to have with SLOMFP is that the Staff would not hold out for a probabilistic analysis of the Shoreline Fault." Reply at 6. This, says SLOMFP, is a "radical departure" from the Staff's position in the *Pilgrim* license renewal proceeding, where the "Staff referred to the use of PRA in a SAMA analysis as 'an essential and widely accepted part of the cost-benefit methodology.'"[28] SLOMFP notes that the Board in *Pilgrim* agreed with the Staff's position and denied a SAMA-related

[28] Reply at 6-7 (quoting *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), NRC Staff's Response to Request for Hearing and Petition to Intervene Filed by Pilgrim Watch (June 19, 2006)).

contention, "on the ground that probabilistic analysis constitutes the 'accepted and standard practice in SAMA analyses.'"[29]

In response to PG&E's arguments, SLOMFP first states that nothing in Contention EC-1 challenges the CLB for Diablo Canyon and that instead, EC-1 challenges PG&E's SAMA analysis, which is within the scope of a license renewal proceeding. Reply at 7-8. SLOMFP then distinguishes *Indian Point* as dealing with already available information that the applicant chose not to include in its SAMA analysis whereas here, the missing information does not yet exist. *Id.* at 8. SLOMFP asserts that, in the case of information that does not yet exist, the test of compliance with NEPA and 40 C.F.R. § 1502.22 is "whether the analysis 'constitutes a reasonable, good faith presentation of the best information available under the circumstances.'" *Id.* (quoting *Colorado Environmental Coalition v. Dombeck,* 185 F.3d 1162, 1172 (10th Cir. 1999)).

SLOMFP asserts that it has presented sufficient facts to raise a genuine dispute with PG&E regarding whether it has met the *Dombeck* test and whether PG&E should have awaited the outcome of the probabilistic study of the Shoreline Fault before completing the SAMA analysis. *Id.* at 9. According to SLOMFP, these facts include: the proximity of the Shoreline Fault to the Hosgri Fault; the significance of NRC's decision to immediately perform a preliminary deterministic analysis of the Shoreline Fault; the fact that PG&E "accelerated and re-focused" an ongoing probabilistic study to provide earlier results related to the Shoreline Fault; the description in PG&E's SAMA of fire and seismic contributors as "disproportionately dominant when compared to all external events"; the "preliminary" nature of existing information; the fact that the licenses for DCNPP do not expire for another 14 years; and the statement from the President of the CPUC. *Id.* at 9-10. These facts, says SLOMFP, provide sufficient information to show that it has raised a material dispute regarding whether it is reasonable for PG&E to submit a SAMA analysis without waiting for the results of the ongoing studies. *Id.* at 10.

SLOMFP argues that the 40 C.F.R. § 1502.22 cases cited by PG&E do not support its position. SLOMFP acknowledges that the cases hold that "while there will always be more data that could be gathered, agencies have some discretion to draw the line and move forward with decisionmaking," *id.* at 11 (quoting *Town of Winthrop v. Federal Aviation Administration,* 553 F.3d 1, 11 (1st Cir. 2008)), but states that the "situation here is starkly different." *Id.* This is because, according to SLOMFP, "PG&E's SAMA analysis does not include any probabilistic information (or any information at all) about the Shoreline Fault, even though the potential significance of that fault for the safety of Diablo Canyon has been demonstrated by PG&E's and the NRC Staff's responses to the fault's

[29] *Id.* at 7 (quoting *Pilgrim,* LBP-06-23, 64 NRC at 340).

discovery." *Id.* SLOMFP notes finally that it is not asking that PG&E use the "latest scientific methodology" but only a PRA, which is "standard" methodology for SAMA analyses. *Id.* at 11-12.

3. Analysis and Ruling Regarding Contention EC-1

The admissibility of Contention EC-1 is governed by a straightforward application of the six criteria of 10 C.F.R. § 2.309(f)(1)(i)-(vi). By that standard, we conclude that EC-1 is admissible.[30]

First, EC-1 is a "specific statement of the issue of law or fact" sought to be litigated, as required by 10 C.F.R. § 2.309(f)(1)(i). It asserts that PG&E's SAMA analysis fails to comply with 40 C.F.R. § 1502.22, NEPA, and 10 C.F.R. § 51.53(c)(3)(ii)(L), because it is "not based on complete information that is necessary . . . [and] failed to acknowledge the absence of the information or demonstrate[ ] that the information is too costly to obtain. Petition at 8.

Second, SLOMFP has provided a "brief explanation of the basis" for EC-1 as required by 10 C.F.R. § 2.309(f)(1)(ii). The explanation of the basis of EC-1 starts with the words of the contention itself. EC-1 states that the SAMA analysis is insufficient "*because* it is not based on complete information" and "*because* PG&E has failed to acknowledge the absence of the information." Petition at 8. SLOMFP quotes 40 C.F.R. § 1502.22 in support of this claim. *Id.* at 7-8. EC-1 states that the missing information is "necessary for an understanding of seismic risks to the Diablo Canyon nuclear power plant." *Id.* at 8. More specifically, SLOMFP asserts that "information sufficient to conduct a probabilistic analysis of the risks posed by the Shoreline Fault is 'essential' to the SAMA, and must be included unless the cost is exorbitant." *Id.* at 14.[31] This satisfies the "brief explanation of the basis" requirement of 10 C.F.R. § 2.309(f)(1)(ii).

Third, it is clear to this Board that EC-1 is "within the scope" of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii). NRC regulations require that a license renewal ER include a SAMA analysis (if not previously considered by the Staff). 10 C.F.R. § 51.53(c)(3)(ii)(L). Thus, the adequacy, or inadequacy, of PG&E's SAMA analysis is certainly within the scope of this license renewal proceeding.

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[30] The six admissibility criteria of 10 C.F.R. § 2.309(f)(1)(i)-(vi) are critical to our analysis. In the Petition each contention is presented and organized by subsections (i) to (v) (oddly, subsection (vi) is not expressly included). However PG&E (and to some extent the NRC Staff) rarely references what subsection it is relying upon. If a party asserts that a contention is, or is not, compliant with a certain subsection of 10 C.F.R. § 2.309(f)(1)(i)-(vi), it would assist us if the party would, at least occasionally, quote and/or cite the relevant subsection.

[31] At bottom, SLOMFP asserts that there is a critical omission from the SAMA analysis — information regarding the Shoreline Fault.

We reject PG&E's argument that EC-1 is an impermissible challenge to the CLB of DCNPP and therefore not within the scope of this license renewal proceeding. PG&E has confused the scope of the safety review and the scope of the NEPA review. As the Commission has clearly stated, in the context of license renewal, "[t]he Commission's AEA review under Part 54 does not compromise or limit NEPA." *Turkey Point,* CLI-01-17, 54 NRC at 13. Although the Part 54 review focuses on aging of a limited set of systems, structures, and components, rather than on the CLB, the NEPA review is not so restricted. "[T]he two inquiries are analytically separate: one (Part 54) examines radiological health and safety, while the other (Part 51) examines environmental effects of all kinds. Our aging-based safety review does not in any sense 'restrict NEPA' or 'drastically narrow[ ] the scope of NEPA.'" *Id.* The NEPA review in license renewal proceedings is not limited to aging-related issues. *See* Tr. at 152.

The fourth criterion of contention admissibility is that the petitioner 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." 10 C.F.R. § 2.309(f)(1)(iv). Inasmuch as the NRC regulations require that the ER and EIS include a SAMA analysis, *see* 10 C.F.R. §§ 51.53(c)(3)(ii)(L), 51.92(a)(2), the Board concludes that the adequacy of that analysis is material to the findings NRC must make in a license renewal proceeding.

More particularly, the Board concludes that SLOMFP's assertion that the SAMA is incomplete because the analysis does not include the Shoreline Fault (and does not justify the omission of such information), raises a fair and material issue. PG&E's existing SAMA analysis acknowledges that "both fire and seismic contributors are disproportionately dominant" risk factors. ER at F-65. SLOMFP has identified a number of current and ongoing seismic studies concerning the Shoreline Fault that will apparently be completed in 2010, 2011, and at the latest 2013. Petition at 12; Reply at 9-10. SLOMFP notes that the license renewal is not needed until 2024. Petition at 15. Meanwhile, CEQ has stated that the term "cost" "encompasses . . . costs in terms of time (delay)."[32] Whether a probabilistic evaluation of the Shoreline Fault is "essential" to the SAMA analysis and whether the costs of obtaining it are "exorbitant," are material issues under 10 C.F.R. § 51.53(c)(2)(ii)(L) and 40 C.F.R. § 1502.22.[33] For the present, noting that there might well be other ways, such as bounding analyses, to examine mitigation alternatives associated with any seismic challenges associated with the Shoreline Fault, we determine only that SLOMFP has raised a material issue under NEPA, not whether its position is correct.

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[32] National Environmental Policy Act Regulations; Incomplete or Unavailable Information, 51 Fed. Reg. 15,618, 15,622 (Apr. 25, 1986).

[33] CEQ regulations are entitled to substantial deference by the NRC. *San Luis Obispo Mothers for Peace v. NRC,* 449 F.3d 1016, 1032-33 (9th Cir. 2006), *cert. denied,* 549 U.S. 1166 (2007).

Likewise, a petitioner need not submit a sensitivity analysis as a prerequisite to the admission of a SAMA-related contention. The November 2008 discovery of the Shoreline Fault is certainly significant new information. And although the NRC Staff's initial review of the Shoreline Fault accepts PG&E's "preliminary assessment that the hazard potential of the Shoreline Fault is bounded by the current review ground motion spectrum for the facility," RIL-09-001 at 1, that review is rife with disclaimers and limitations. For example, the first page of the RIL uses the term "preliminary" seven times, including once in the title. *Id.* And the Staff indicates that this limited and preliminary deterministic assessment concludes that the seismic loading levels from the Shoreline Fault are "slightly below those levels for which [DCNPP] was previously analyzed." *Id.* The use of the phrase "slightly below," when associated with the frequent characterization of those analyses as "preliminary," suggests a material qualification of the result, and casts a serious question regarding whether a more extensive analysis would conclude that the existing analyses indeed bound those which might separate out the impacts of the Shoreline Fault. There is already available new information regarding the Shoreline Fault, and the NRC clearly contemplates that additional information concerning the seismic situation of the Shoreline Fault will be forthcoming. *See id.* at 10-11. Furthermore, it appears that this further information will be generated in the relatively near future (2010-2013). Meeting Summary at 2. The NRC Staff agrees that the wholesale omission of any discussion of the implications of the Shoreline Fault in the SAMA analysis is not acceptable. Staff Answer at 28. We conclude that EC-1 raises a material issue, as required by 10 C.F.R. § 2.309(f)(iv).

Turning to the fifth admissibility criterion, the Board finds that SLOMFP has satisfied the requirement to "[p]rovide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position." 10 C.F.R. § 2.309(f)(1)(v). SLOMFP has alleged numerous facts to support its position that the SAMA analysis fails to satisfy 40 C.F.R. § 1502.22, NEPA, and 10 C.F.R. § 51.53(c)(3)(ii)(L). For example, SLOMFP alleges that PG&E discovered the Shoreline Fault in 2008; that the fault is located in close proximity to DCNPP; that the alacrity of the response by PG&E and the NRC Staff to the Shoreline Fault reveals that it is highly significant; that the deterministic assessment that the Shoreline Fault is bounded by the previously known Hosgri Fault is highly preliminary and will be subject to further probabilistic analysis; that PG&E immediately reacted to the discovery of the Shoreline Fault by accelerating and refocusing the LTSP studies; that under the Action Plan, such studies are expected to be complete in 2010, 2011, and 2013; that seismic contributors are "disproportionately dominant" according to the SAMA risk analysis for DCNPP; and that probabilistic risk assessment is the NRC's standard approach in SAMA analyses. Petition at 9-13. While none of these alleged facts has been proven, they clearly constitute a "concise statement of the alleged facts . . . which support"

SLOMFP's position. Under the plain language of the regulation ("alleged facts *or* expert opinion"), a petitioner does not need to provide, as the Staff suggests, an "expert opinion" or a "substantive affidavit" in order to satisfy subsection (v).[34] In addition, we note that SLOMFP has provided "references to the specific sources and documents on which [it] intends to rely to support its position" as required by 10 C.F.R. § 2.309(f)(1)(v). SLOMFP refers us to CEQ regulation 40 C.F.R. § 1502.22, PG&E's SAMA analysis (its omission of the Shoreline Fault), NRC's RIL-09-001, NRC's January 20, 2010 Meeting Summary, and the June 25, 2009 letter from the California Public Utilities Commission. Petition at 9-15. The Board concludes that SLOMFP has satisfied the requirements of 10 C.F.R. § 2.309(f)(1)(v).

In the context, apparently, of 10 C.F.R. § 2.309(f)(1)(v), the Staff acknowledges that EC-1 is an admissible contention of omission (i.e., the failure of the SAMA analysis to discuss the Shoreline Fault). Staff Answer at 28. But then the Staff informs us as to what, in its view, would satisfactorily cure the omission. *Id.* at 29. The Staff lists three items related to the Shoreline Fault that, it believes, if adequately provided, will suffice and states that "precise quantification using state-of-the-art PRA methods is not needed to complete a SAMA analysis." *Id.* at 29, 30.

But the Staff's propositions at this point regarding what would effectively cure the omission are matters for a merits decision, not for a determination of whether or not EC-1 presents an admissible contention. Similarly, SLOMFP indicates what it thinks is needed in order to cure the omission.[35] The determination of the sufficiency of any cure submitted by PG&E is a matter for a later day, once such a cure has been submitted to the Staff. For now, we conclude only that there is indeed an omission of consideration of the effects of the Shoreline Fault and the cost/benefit analyses changes which that consideration might engender from the SAMA analyses. It is simply not appropriate for us to here decide what additional information (whether a PRA or the three items listed by the Staff), if any, is necessary to cure the alleged deficiency and to satisfy 40 C.F.R. § 1502.22, NEPA, and 10 C.F.R. § 51.53(c)(3)(ii)(L). We understand and admit EC-1 on the basis that there is an asserted omission; we do not address the merits of any party's proposition of what cure must be undertaken.

Finally, we turn to the sixth criterion for contention admissibility. The petitioner is required to "provide sufficient information to show that a genuine

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[34] *See* Staff Answer at 31 ("Thus, '[a] petitioner's issue will be ruled inadmissible if the petitioner "has offered no tangible information, no experts, [or] no substantive affidavits"' " (citing *Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003) (quoting *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000))).

[35] In explaining the basis for EC-1, SLOMFP asserts, specifically, that the SAMA analysis should discuss the Shoreline Fault and that a PRA of this fault is needed. Petition at 14.

dispute exists with the applicant/licensee on a material issue of law or fact." 10 C.F.R. § 2.309(f)(1)(vi). For the reasons set forth in our discussion of subsections (iv) and (v) above, the Board also concludes that SLOMFP has satisfied subsection (vi). In addition, to the extent that SLOMFP contends that "the application fails to contain information on a relevant matter" (e.g., information regarding the effects of the Shoreline Fault), the Petition discusses the "identification of each failure and the supporting reasons [*e.g.,* 40 C.F.R. § 1502.22] for the petitioner's belief." 10 C.F.R. § 2.309(f)(1)(vi).

In this connection, the Board rejects the proposition that SLOMFP is asking the Board to "suspend the proceeding or the license renewal review."[36] PG&E Answer at 20. PG&E aptly notes that it is the Commission's general policy to expedite adjudicatory proceedings wherever possible, *id.* at 20 n.14, and we agree. EC-1 does not ask us to suspend the proceeding. Instead, it asserts that the SAMA analysis fails to satisfy certain legal requirements (i.e., where information is "essential" either include it within the environmental analysis or justify its absence). If EC-1 is admitted, the evidentiary hearing on it would proceed in the normal course, and the Board would decide the merits of the issue.

We agree that "the nature of scientific research is that it is always ongoing," that there "will always be more data that could be gathered," and that agencies "have some discretion to draw the line and move forward with decision-making." PG&E Answer at 20; *see also* Staff Answer at 30, 33. But those platitudes do not resolve this specific case. Here SLOMFP has alleged that there are several active studies that are aggressively being pursued by PG&E, USGS, and the NRC concerning a newly discovered earthquake fault located 600 meters from the Diablo Canyon nuclear reactors. SLOMFP alleges that the fruits of these studies will be available in 2010, 2011, and 2013. Meanwhile, SLOMFP points out that the current licenses for DCNPP do not expire until 2024 and 2025. SLOMFP refers us to the CEQ regulation that specifies how to deal with a NEPA situation where there is incomplete information (*i.e.,* 40 C.F.R. § 1502.22), and asserts that, under the NEPA rule of reason, the ER does not comply with the CEQ regulation. All of those factors would enter into an eventual determination on the merits regarding the sufficiency of any cure to the omission.

We do not agree that the Petitioners are arguing that the SAMA analysis is "necessarily incomplete so long as PG&E and the NRC continue their assessment" of the Shoreline Fault. Instead, we see EC-1 as asserting that the SAMA analysis is incomplete because of the discovery of the Shoreline Fault and the associated seismic effects. While SLOMFP also asserts that any examination would be insufficient until the results are available from several ongoing studies that are

[36] It is unclear if PG&E is posing these arguments under 10 C.F.R. § 2.309(f)(1)(v) or (vi). It has not cited or quoted a particular subsection, and the language of the arguments could be read to implicate either or both subsections.

expected to be complete in the near term, that is not a matter to be determined at this stage of the proceeding. SLOMFP has raised a reasonable issue for litigation in this license renewal proceeding.

Accordingly, we conclude that EC-1 satisfies the contention admissibility criteria of 10 C.F.R. § 2.309(f)(1) and therefore admit the contention as a contention of omission. For clarity in the future litigation of this contention, we reformulate it as follows:

> PG&E's Severe Accident Mitigation Alternatives ("SAMA") analysis fails to satisfy 40 C.F.R. § 1502.22 because it fails to consider information regarding the Shoreline Fault that is necessary for an understanding of seismic risks to the Diablo Canyon nuclear power plant. Further, that omission is not justified by PG&E because it has failed to demonstrate that the information is too costly to obtain. As a result of the foregoing failures, PG&E's SAMA analysis does not satisfy the requirements of the National Environmental Policy Act ("NEPA") for consideration of alternatives or NRC implementing regulation 10 C.F.R. § 51.53(c)(3)(ii)(L).

B. Contention EC-2

The admission of Contention EC-2 requires both that the Commission waive the application of certain regulations pursuant to 10 C.F.R. § 2.335(d) and that the contention meet the normal admissibility requirements of 10 C.F.R. § 2.309(f)(1). Authority for grant of a waiver rests singularly with the Commission. 10 C.F.R. § 2.335(d). At this juncture, the Board's role is to decide (a) whether SLOMFP's waiver request makes a *prima facie* showing, and (b) whether EC-2 is otherwise admissible. *See supra* Section IV. If both criteria are met, the matter is automatically referred to the Commission for a merits decision on the waiver. *Id.* If either criterion is not met, the contention is dismissed. We address both criteria below.

1. Statement of Contention EC-2 and Waiver Petition

a. Contention

Proposed Contention EC-2, entitled "Failure of SAMA Analysis to Address Environmental Impacts of Spent Fuel Pool Accidents," states:

> PG&E's Environmental Report is inadequate to satisfy NEPA because it does not address the airborne environmental impacts of a reasonably foreseeable spectrum of spent fuel pool accidents, including accidents caused by earthquakes.

Petition at 16.

b. Waiver Petition

SLOMFP acknowledges, *ab initio,* that 10 C.F.R. Part 51, Subpart A, Appendix B, and 10 C.F.R. § 51.53(c)(2), which are part of NRC's NEPA regulations, specify that, when a reactor licensee submits a license renewal application, it does not need to address the environmental impacts of the storage of spent (radioactive) fuel in its ER. *See* Waiver Petition at 1. SLOMFP further acknowledges that a waiver of that regulatory provision is necessary for this contention to be admitted because, as a general rule, 10 C.F.R. § 2.335(a) precludes a contention from attacking an NRC regulation. Reply at 12; Tr. at 195-96. Therefore SLOMFP has, pursuant to 10 C.F.R. § 2.335(b), filed a request for a waiver of the foregoing regulations. Waiver Petition at 1. The waiver petition states:

> [T]he purpose of the regulations — to make a generic determination of environmental risk that can be applied in all license renewal proceedings — would not be served by their application in this case with respect[ ] to the consideration of the environmental impacts of an earthquake-caused pool fire or the environmental impacts of an attack on the spent fuel pool.

Id. The Waiver Petition is accompanied by a declaration by Diane Curran, counsel for the Petitioner.

2. Arguments Regarding Contention EC-2

a. Arguments Regarding Admissibility of Contention EC-2

According to SLOMFP, PG&E's ER for DCNPP "omits any discussion of spent fuel storage impacts because it is a Category 1 issue."[37] Petition at 16. SLOMFP notes that spent fuel storage impacts are discussed generically for all plants in the NRC's 1996 generic environmental impact statement for nuclear plant license renewals (1996 GEIS),[38] which forms the foundation for elimination of their consideration in license renewal proceedings. *Id.* Contention EC-2 focuses on asserted errors/omissions in, and recent new information regarding, the information developed in the 1996 GEIS. *Id.*

SLOMFP argues that the 1996 GEIS (which is NRC's most current GEIS for license renewal), "asserts, with very little discussion, that the environmental impacts of spent fuel storage are small." *Id.* To indicate the importance of this

[37] If an environmental impact is designated as a "Category 1" issue in Appendix B to Subpart A of Part 51, then the ER for a license renewal is not required to analyze that issue. *See* 10 C.F.R. § 51.53(c)(3)(i).

[38] Division of Regulatory Applications, Office of Nuclear Regulatory Research, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," NUREG-1437 (May 1996).

limited discussion, SLOMFP cites to a 2009 Draft Revised License Renewal GEIS (2009 Draft GEIS), which represents the NRC's ongoing current effort to update the 1996 GEIS. *Id.* SLOMFP notes that the 2009 Draft GEIS includes more recent spent fuel pool (SFP) analyses (performed since 1996) and that the 2009 Draft GEIS states that "the 'key document in this regard' is NUREG-1738, *Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants*" (which was released in 2001).[39] SLOMFP further asserts that neither the 2009 Draft GEIS nor NUREG-1738 analyzes "spent fuel pool accidents outside the eastern and central United States" and that both specifically exclude Diablo Canyon from their conclusions. *Id.* at 17. SLOMFP quotes NUREG-1738 as stating that western nuclear reactor sites, like DCNPP, "would need to be considered on a site-specific basis because of important differences in seismically induced failure potential of the SFPs [spent fuel pools]. [NUREG-1738] at ix."[40] Additionally, SLOMFP notes that NUREG-1738 states that an SFP fire "could result in high consequences in terms of property damage and land contamination" and asserts that the economic consequences of an SFP fire could thus be especially high in California because it is the highest-earning agricultural state. *Id.* at 18 (quoting NUREG-1738 at A6-26). Based on these statements in NUREG-1738 and the fact that PG&E's SAMA analysis acknowledges that seismic accident risk contributors are "disproportionately dominant" compared to all external events at DCNPP, SLOMFP asserts that, in order to comply with NEPA, PG&E's ER "should consider a full spectrum of potential [SFP fire] causes, including seismic contributors." *Id.* at 17-18. The analysis, according to SLOMFP, should include the "economic and societal effects of widespread land contamination and the need to relocate the population," as well as alternatives for avoiding and mitigating SFP fire impacts. *Id.* at 19.

SLOMFP asserts that the information in the 2009 Draft GEIS and NUREG-1738 constitutes "new and significant information" that is not generic and that needs to be considered in the Diablo Canyon ER. *Id.* SLOMFP recognizes, however, as we noted above, that in order for EC-2 to be "within the scope" of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii), a waiver of 10 C.F.R. Part 51, Subpart A, Appendix B, and 10 C.F.R. § 51.53(c)(2) is required. *Id.*

PG&E asserts that Contention EC-2 challenges a generic finding and is therefore outside the scope of a license renewal proceeding. PG&E Answer at 22-23. PG&E notes that 10 C.F.R. Part 51, Appendix B, Table B-1 states that spent fuel

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[39] Petition at 16 (quoting Office of Nuclear Regulatory Research, Generic Environmental Impact Statement for License Renewal of Nuclear Plants — Draft Report for Comment, NUREG-1437, App. E, at E-33 (Rev. 1 July 2009) (2009 Draft GEIS)).

[40] *Id.* at 17 (quoting T.E. Collins & G. Hubbard, Division of Systems Safety & Analysis, Office of Nuclear Reactor Regulation, Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants, NUREG-1738, at ix (Feb. 2001) (NUREG-1738)).

from an additional 20 years of operation can be stored safely, with small environmental effects, at all plants and classifies such impacts as "Category 1" issues that are not within the scope of individual license renewal proceedings. *Id.* at 22. PG&E also states that the 1996 GEIS contains multiple pages of analyses and justification for its spent fuel storage conclusions including spent fuel accidents and their mitigation alternatives. *Id.* As a result, PG&E asserts that EC-2, which challenges the environmental analysis of SFP accidents, is outside the scope of this proceeding and thus not admissible under 10 C.F.R. § 2.309(f)(1)(iii). *Id.* at 22-23.

In addition, PG&E argues that, even if a waiver were granted, EC-2 is not admissible because it is a challenge to the CLB, specifically to the adequacy of DCNPP's seismic design of the SFP. *Id.* at 30. PG&E asserts that challenges to the CLB are outside of the scope of the license renewal proceeding, referring to a statement by the Commission that "[i]ssues that have relevance during the term of operation under the existing operating license . . . would not be admissible . . . because there is no unique relevance of the issue to the renewal term."[41]

Next, PG&E argues that EC-2 is not admissible because it lacks factual or expert support to show that the risk from a spent fuel accident at DCNPP is different from what was considered in the 1996 GEIS. *Id.* at 30-31. Also, asserts PG&E, SLOMFP fails to propose any plant-specific mitigation alternatives or provide the costs and benefits of such alternatives.[42] Further, says PG&E, the Petition does not reference any specific portions of the ER, including the SAMA analysis. *Id.* PG&E also notes that the Part 51 reference to SAMA analyses "applies only to nuclear reactor accidents, not to spent fuel storage accidents." *Id.* at 31 n.22 (citing *Turkey Point,* CLI-01-17, 54 NRC at 21).

The NRC Staff raises many of the same points as PG&E. The Staff asserts that Contention EC-2 is outside the scope of this proceeding because it addresses the Category 1 issue of spent fuel storage impacts. Staff Answer at 34-35. In addition, the Staff argues that EC-2 is inadmissible because it fails to provide sufficient information to show a genuine dispute with PG&E's license renewal application and lacks a factual basis. *Id.* at 35, 37. The Staff asserts that the 1996 GEIS is "the operative document in this proceeding, currently incorporated by the Commission's regulations, and referenced by the ER." *Id.* at 36. The Staff argues that SLOMFP misses the mark because it fails to claim any deficiency in the 1996 GEIS and instead focuses entirely on the 2009 Draft GEIS. *Id.* The Staff adds that the information SLOMFP cites in support of EC-2 does not demonstrate a deficiency in the 1996 GEIS but instead "demonstrates that the conclusions in

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[41] PG&E Answer at 25 (quoting Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,961 (Dec. 13, 1991)).

[42] *Id.* at 31 (citing *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 11-12 (2002) (*McGuire/Catawba*)).

the GEIS are more robust than originally thought." *Id.* at 37. In addition, the Staff asserts that SLOMFP has neither supported its claim that the almost sixteen pages of SFP impacts analysis in the 1996 GEIS amounts to "very little discussion" nor explained how the 2009 Draft GEIS's exclusion of DCNPP renders the 1996 GEIS inadequate, particularly given that the 2009 Draft GEIS states that the 1996 GEIS's impact conclusions bound SFP accident impacts. *Id.* at 38-39. Finally, the Staff asserts that SLOMFP has not provided any information to suggest that the effects of a DCNPP spent fuel fire on farmland would differ from either the effects of a reactor accident or the generic findings in the GEIS. *Id.* at 39.

In its Reply, SLOMFP argues that the 1996 GEIS cannot be cast in stone and that the new information contained in the 2009 Draft GEIS "completely changes" the situation and must be considered under NEPA. Reply at 12. (The argument is discussed more fully in Section B.2.b, below.) SLOMFP responds that PG&E and the NRC Staff have ignored the fact (alleged in the Curran Decl.) that NUREG-1738 does not address the social or economic effects of evacuation after an accident and have ignored SLOMFP's discussion of potential environmental impacts from an SFP fire, particularly impacts related to property damage and land contamination. Reply at 13.

SLOMFP also argues that, even if the impacts of reactor accidents and SFP accidents are similar, mitigation measures for the two types of accidents would be very different. *Id.* at 13-14. Additionally, SLOMFP asserts that, contrary to PG&E's position, Contention EC-2 need not relate to age-related degradation or issues unique to license renewal to be admissible because it is a NEPA contention and "[t]he NRC's 'aging-based safety review does not in any sense "restrict NEPA" or "drastically narrow the scope of NEPA."'" *Id.* at 14 (quoting *Turkey Point,* CLI-01-17, 54 NRC at 13).

b. Arguments Regarding Waiver Petition

SLOMFP concedes that a waiver of the agency's regulations implementing a generic environmental impact determination on spent fuel storage impacts is necessary in order for Contention EC-2 to be admissible. Reply at 12; *see also* Petition at 19; Tr. at 195-96. SLOMFP argues that a waiver is appropriate with respect to this contention because of significant new information in the 2009 Draft GEIS "demonstrating that DCNPP has unique seismic characteristics that resulted in its exclusion from the principal study on which the NRC relies for its conclusion that spent fuel storage impacts are small." Waiver Petition at 1. In the declaration supporting the waiver petition, SLOMFP's counsel, Diane Curran, states that the 2009 Draft GEIS differs substantially from the 1996 GEIS in that the new draft contains information showing that the NRC "now relies on an entirely new set of risk analyses and mitigative measures than it did in the 1996 License Renewal GEIS" and the 2009 Draft GEIS "concedes, for the first time, that the NRC

does not have an adequate technical basis for reaching any conclusions about the environmental impacts of an earthquake at DCNPP." Curran Decl. ¶¶ 5-6.[43] Ms. Curran emphasizes that the "key document" (NUREG-1738) on which the 2009 Draft GEIS says that it relies "contains a disclaimer . . . that its general conclusions about the risk of a pool fire do not apply to Diablo Canyon." Curran Decl. ¶ 7 (citing 2009 Draft GEIS at E-33 & n.(a)).

At oral argument, SLOMFP asserted that NUREG-1738 is the only study referenced in the 2009 Draft GEIS that addresses seismic risks to SFPs in California. *See* Tr. at 279. In addition, SLOMFP's counsel notes in her declaration that NUREG-1738 acknowledges that a pool fire "could result in high consequences in terms of property damage and land contamination" and argues that those impacts "could be particularly high for California as the highest-earning agricultural state in the union." Curran Decl. ¶ 8. She also asserts that the 2009 Draft GEIS's conclusion that "the risk of an SFP zirconium fire initiation is expected to be less than reported in NUREG-1738 . . . and previous studies" cannot be meaningfully applied to DCNPP because the analysis in NUREG-1738 does not include DCNPP. *Id.* ¶ 9. Thus, she asserts that, in order to comply with NEPA, PG&E's ER should "consider a full spectrum of potential causes, including seismic contributors" and "provide a complete analysis of the consequences," including "widespread land contamination," of an SFP accident. *Id.* ¶¶ 13-14.

PG&E asserts that the waiver requested by SLOMFP is not warranted. It cites the *Millstone* case as the controlling precedent for obtaining a waiver. PG&E Answer at 23-24. Under *Millstone,* a waiver may only be granted if (i) the rule's strict application "would not serve the purposes for which [it] was adopted"; (ii) the movant has alleged "special circumstances" that were "not considered, either explicitly or by necessary implication, in the rulemaking proceeding leading to the rule sought to be waived"; (iii) those circumstances are "unique" to the facility rather than "common to a large class of facilities"; and (iv) a waiver of the regulation is necessary to reach a "significant safety problem." *Id.* (quoting *Millstone,* CLI-05-24, 62 NRC at 559-60).

PG&E asserts that SLOMFP has met none of the four *Millstone* factors. As to the first factor, PG&E agrees with SLOMFP's statement that the purpose of Part 51, Appendix B, is to "codify and apply a generic determination . . . that spent fuel may be safely stored at reactor sites . . . without imposing any significant environmental risk." PG&E Answer at 24 (quoting Curran Decl. ¶ 4). PG&E says that "precluding site-specific consideration of spent fuel storage issues in this licensing proceeding" would indeed serve this purpose. *Id.*

[43] At oral argument, SLOMFP again asserted that although both the 1996 GEIS and the 2009 Draft Revised GEIS reach a conclusion that the risk of SFP fires is low, they do so for different reasons. *See* Tr. at 197-98.

As to the second factor, PG&E argues that SLOMFP has not demonstrated "special circumstances" because the 1996 GEIS concluded that, "even under the worst probable cause of a loss of spent-fuel coolant (a severe seismic-generated accident causing a catastrophic failure of the pool), the likelihood of a fuel-cladding fire is highly remote." *Id.* at 24-25 (quoting 1996 GEIS at 6-72, 6-75). In addition, PG&E says that SLOMFP has not connected the spent fuel storage concerns with any age-related issues or "other issues unique to license renewal," thus reinforcing its assertion that this is a CLB matter that need not be considered here. *Id.* at 25. PG&E argues that the reasoning behind the conclusions in both the 1996 GEIS and the 2009 Draft GEIS makes them applicable to all nuclear plants, including DCNPP. *Id.* at 25-27. PG&E states that the 1996 GEIS found the *risk* of a seismically induced SFP fire to be "no greater than the risk from core damage accidents due to seismic events beyond the safe-shutdown earthquake."[44] It notes that the 2009 Draft GEIS similarly concludes that "the environmental *impacts* from accidents at [SFPs] . . . can be comparable to those from reactor accidents at full power." *Id.* at 26 (quoting 2009 Draft GEIS at 4-156) (emphasis added). PG&E asserts that SLOMFP has not explained why this "bounding" approach is inadequate for DCNPP or under NEPA. *Id.* at 26-27. At oral argument, PG&E also asserted that the general conclusion in the Draft GEIS that the *risk* of an SFP fire is expected to be less than predicted in NUREG-1738 does not contain any exceptions. *See* Tr. at 238. PG&E further argues that SLOMFP has not explained why mitigation of SFP accidents must be addressed on a site-specific basis in light of the 2009 Draft GEIS's finding that the potential for cost-effective SAMAs related to those accidents is "substantially less than for reactor accidents." PG&E Answer at 27.

As to the third *Millstone* factor, PG&E asserts that SLOMFP has not demonstrated that SFP accident *impacts*[45] at DCNPP would be *unique* to that facility

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[44] PG&E Answer at 26 (quoting E.D. Throm, Division of Safety Issue Resolution, Office of Nuclear Regulatory Research, Regulatory Analysis for the Resolution of Generic Issue 82, "Beyond Design Basis Accidents in Spent Fuel Pools," NUREG-1353, at ES-4 (Apr. 1989)) (emphasis added).

[45] At several places in this discussion, the Board has underlined the term "impacts" to highlight our perception that the parties are using this term in several different ways. Sometimes the term "impact" seems to be used as a synonym for the term "consequences" or "damages" (*e.g.,* the "impact" of a meltdown of a spent fuel pool is the same, regardless of what caused the meltdown, *or* the "impact" of a meltdown caused by X is "no worse than" or "bounded by" the impact of a meltdown caused by Y). At other times, the term "impact" seems to include a probability component and is used as a synonym for the term "risk." As we discuss at page 309, *infra,* the NEPA requirement that the NRC consider the environmental "impact" of a proposed action includes consideration of the probability of the various environmental consequences of an action (and the exclusion of consequences that are too remote and speculative). Thus, even if the "consequences" of a meltdown of spent fuel in a spent fuel pool are the same, regardless of what initiated it, the NEPA assessment of the potential "environmental

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because (a) "many plants are located in large agricultural areas, near large populations, or adjacent to important fisheries or industries," and (b) SLOMFP has not alleged any "unique age-related issues at Diablo Canyon." *Id.* at 28.

As to the fourth *Millstone* factor, PG&E asserts that SLOMFP has not shown that a waiver is necessary to reach a significant safety problem because (1) SLOMFP has not identified an age-related safety issue and (2) previous NRC evaluations of spent fuel storage at DCNPP, including a hearing in which SFP performance during an earthquake at the Hosgri Fault was specifically discussed, resulted in conclusions that the SFP would have no significant environmental impact. *Id.* at 28-29; *see also* Tr. at 250-53.

Finally, PG&E notes that the Commission has denied a petition for rulemaking asking it to reevaluate spent fuel storage impacts on a site-specific basis and that decision was upheld by the Court of Appeals for the Second Circuit.[46] At oral argument, PG&E asserted that, in denying the rulemaking petition, the Commission found that subsequent studies on SFP risks show that NUREG-1738 is in fact "extremely conservative." Tr. at 233-34.

In contrast to PG&E, which focused exclusively on the *merits* of whether a waiver is warranted, the NRC Staff focused on whether SLOMFP has made a *prima facie* showing for waiver, as is required at this stage under 10 C.F.R. § 2.335. Staff Waiver Response at 1. The Staff evaluates whether the waiver request provides a *prima facie* showing for the four factors of *Millstone. Id.* at 4.

At the outset, the Staff acknowledges that *Millstone* is somewhat problematic. *Id.* at 4 n.3. Specifically, the Staff notes that the fourth factor in *Millstone* states that a waiver will only be granted in order to reach a "significant *safety* problem." *Id.* (emphasis added). However, EC-2 is an *environmental* contention. The Staff rejects the proposition that waivers are limited to safety regulations and concludes that *Millstone* "should be liberally construed to also permit waiver of regulations to reach environmental issues, provided, of course, that those issues are significant." *Id.*

Turning to the EC-2 request for waiver from Appendix B of 10 C.F.R. Part 51, the Staff asserts that SLOMFP has not made a *prima facie* showing on the first ("not serve the purposes") or fourth ("significant safety [or environmental] problem") prongs of the *Millstone* test. *Id.* at 6. As to the first factor, i.e., that the

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impact" of constructing or operating a spent fuel pool may be different if a new initiator is added to the environmental impact assessment, or the probability of a previously known initiator is increased. In short, if the *probability* of the adverse environmental *consequence* increases, then the *risk* increases and the NEPA environmental *impact* assessment may be different.

[46] PG&E Answer at 29-30 (citing The Attorney General of Commonwealth of Massachusetts, the Attorney General of California; Denial of Petitions for Rulemaking, 73 Fed. Reg. 46,204 (Aug. 8, 2008); *New York v. NRC,* 589 F.3d 551 (2d Cir. 2009)); *see also* Tr. at 228-29.

rule's strict application would not serve the purposes for which it was adopted,[47] the Staff argues that the application of Appendix B's generic environmental determinations to DCNPP *would* serve the Appendix's purpose because the 2009 Draft GEIS "actually concludes that 'the environmental *impacts* stated in the 1996 GEIS bound the *impact* from [SFP] accidents.'" Staff Waiver Response at 7-8 (quoting 2009 Draft GEIS at E-37) (emphasis added). And the Staff asserted at oral argument that the fact that NUREG-1738 specifically excludes western reactors, including DCNPP, does not by itself say anything (pro or con) about the 1996 GEIS's conclusions because the 2009 Draft GEIS relies on other studies in addition to NUREG-1738 to reach its generic conclusions on SFP accidents. *See* Tr. at 258. The Staff emphasizes that the 2009 Draft GEIS is only a draft and that for now the 1996 GEIS remains the basis for the generic conclusion that reactor accident impacts bound SFP impacts. Staff Waiver Response at 8. The Staff asserts that SLOMFP has "not produced evidence that this [1996 GEIS] analysis is no longer valid" or that any assumptions made in the 1996 GEIS are "erroneous or unsafe." *Id.* Thus, SLOMFP has "not shown that application of the rule [10 C.F.R. Part 51, Appendix B] would prohibit the NRC from considering a significant issue."[48] *Id.* at 8.

In further support of its argument, the Staff cites the Commission's decision in *Turkey Point,* which discussed whether the "possibility of catastrophic hurricanes" at a nuclear power plant in Florida warranted a waiver.[49] *Id.* at 9. The Staff notes that, even though hurricanes were excluded from the 1996 GEIS because their risks to spent fuel pools were perceived as "very low or negligible," the intervenor in *Turkey Point* "*if* it had requested a waiver," had "not produced sufficient evidence to justify a waiver." *Id.* at 9 (citing *Turkey Point,* CLI-01-17, 54 NRC at 22-23) (emphasis added). This, the Staff asserts, shows that the fourth factor of *Millstone* — significance — was not satisfied. *Id.*

The NRC Staff also briefly addresses two other arguments SLOMFP makes in support of its waiver petition. First, the Staff asserts that SLOMFP has not provided information supporting the proposition that the environmental effects of an SFP fire on farmland near DCNPP would be different from the environmental effects of a reactor accident or the effects discussed in the GEIS. *Id.* at 9-10. Next, the Staff asserts that SLOMFP misreads the 2009 Draft GEIS's analysis of

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[47] At oral argument, the Staff agreed that the Applicant "perhaps stated the [purpose of the Appendix B to Part 51] too narrowly." *See* Tr. at 255.

[48] As stated above, the Staff concedes that because the regulations at issue in SLOMFP's waiver petition are environmental, *Millstone*'s "significant safety problem" prong does not literally apply. Instead, applying the rationale behind the fourth *Millstone* factor, the Staff posits that it should be construed in this instance to permit a waiver if it is necessary to reach a significant environmental issue. Staff Waiver Response at 4 n.3.

[49] No waiver was requested in *Turkey Point. See* CLI-01-17, 54 NRC at 22-23.

mitigation measures, which in fact "appears to focus on common features of all spent fuel pools," and that SLOMFP does not demonstrate "how the existence of site-specific mitigation measures at spent fuel pools would undermine the GEIS." *Id.* at 10. Thus, the Staff argues, SLOMFP has not shown how application of the rules would not serve the purpose for which they were adopted. *Id.* Additionally, the Staff asserts that the reference in the 2009 Draft GEIS to site-specific analyses is not "incompatible with a generic determination" because the 2009 document is not at issue in this case. *Id.* And even if the 2009 Draft GEIS were relevant here, the Staff argues that it relies on "rigorous accident progression analyses" and "recent mitigation enhancements" that support the conclusions of the 1996 GEIS. *Id.* at 10-11.

In its Reply, SLOMFP asserts that NEPA requires the 1996 GEIS to be updated if "new and significant information or changed circumstances would change the outcome of the environmental analysis." Reply at 12 (citing 10 C.F.R. §§ 51.53(c)(iv) and 51.92(a)(2)). SLOMFP asserts that the 2009 Draft GEIS completely changes the technical basis for the conclusions in the 1996 GEIS because "with respect to Diablo Canyon, the Draft Revised GEIS effectively withdraws the 1996 GEIS' statement of confidence that spent fuel pool fire impacts would be insignificant." Reply at 12, 13 n.13; *see also* Tr. at 197-98. SLOMFP also reiterates that NUREG-1738 specifically excludes DCNPP from its seismic analysis. Reply at 13. Thus, SLOMFP argues, "[t]o ignore this tremendous change in the reasoning behind the GEIS and its implications for Diablo Canyon in this licensing proceeding would constitute an extreme violation of NEPA and the NRC's implementing regulations." *Id.*

In its brief addressing the applicability of *Millstone,* SLOMFP asserts that, because it addressed a safety issue, *Millstone* is not completely applicable to SLOMFP's waiver request, which raises environmental issues. SLOMFP Waiver Brief at 2. When dealing with a request to waive an environmental regulation under 10 C.F.R. § 2.335(b), SLOMFP argues that, instead of applying the "significant safety issue" prong of *Millstone,* NRC should use the "significant new information" criterion of 10 C.F.R. § 51.92(a)(2) and *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 371-72 (1989). *Id.*

Likewise, with regard to the first factor of *Millstone,* SLOMFP states, "In the context of a NEPA analysis, the question raised by § 2.335(b) of whether application of a regulation would 'serve the purposes for which the rule or regulation was adopted' can be addressed by examining the continued viability of the environmental analysis on which the regulation is based." *Id.* (quoting *Millstone,* CLI-05-24, 62 NRC at 560). In addition, SLOMFP states that the "special circumstances" test, the second factor of *Millstone,* "is consistent with the 'new information or changed circumstances' standard of 10 C.F.R. § 51.92(a)(2)." *Id.* at 3. SLOMFP asserts that in applying *Millstone* factors (ii) and (iv) to environmental issues, NRC should consider not only special circumstances not

considered in the *rulemaking* (i.e., of the regulation being challenged) but also special circumstances not considered in the *GEIS* supporting the regulation. *Id.*

Applying its modified version of the *Millstone* test, SLOMFP asserts that it has met all four factors. The first factor ("the rule's strict application would not serve the purposes for which [it] was adopted") is met, SLOMFP asserts, because the specific exclusion of nuclear plants in the western United States from the generic seismic environmental impact conclusions and the reliance on site-specific mitigation measures in the 2009 Draft GEIS constitute new information undermining the generic conclusions of the 1996 GEIS. *Id.* at 3-4. The second factor (special circumstances not considered) is met because the new information contained (and relied upon) in the 2009 Draft GEIS was not addressed in the 1996 GEIS. *Id.* at 4. SLOMFP adds that the third *Millstone* factor (the special circumstances are unique to the facility rather than common to a large class of facilities) is met because the seismic conclusions in the 2009 Draft GEIS and NUREG-1738 specifically exclude DCNPP and there is thus "no current technical basis" for the conclusion that continued spent fuel storage at DCNPP would have insignificant impacts. *Id.* at 5. Finally, SLOMFP states that the fourth *Millstone* factor (significance) is met because the environmental impacts of an SFP fire at DCNPP, including land contamination, would be significant, and the 2009 Draft GEIS "analysis is extremely cursory and is also tainted by probability considerations that are concededly inapplicable to Diablo Canyon." *Id.*

3. Analysis and Ruling Regarding Waiver Petition

In order for EC-2 to be "within the scope" of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii), and not violate 10 C.F.R. § 2.335(a), SLOMFP must obtain a waiver under 10 C.F.R. § 2.335(d). Specifically, EC-2 requires the waiver of NRC's environmental regulations that state that, in a license renewal context, the ER does not need to address environmental impacts associated with spent fuel because NRC has already considered such issues on a generic and nationwide basis and has classified such impacts as Category 1. These regulations are 10 C.F.R. Part 51, Subpart A, Appendix B and 10 C.F.R. § 51.53(c)(2).[50] The Board finds, for the reasons discussed below, that SLOMFP has made a *prima facie* showing for such a waiver, i.e., a sufficient showing such that the waiver request should be certified to the Commission for full briefing and a merits decision as to whether a waiver is warranted.

As noted above, a *prima facie* case is defined as "1. The establishment of

[50] PG&E noted that this waiver request also implicates 10 C.F.R. § 51.23. PG&E Answer at 23 n.15. We agree that this regulation is related to SLOMFP's request, and our conclusions regarding the *prima facie* case apply to 10 C.F.R. § 51.23 as well.

a legally required rebuttable presumption. 2. A party's production of enough evidence to allow the fact-trier to infer the fact at issue and rule in the party's favor."[51] *Black's Law Dictionary* 1310 (9th ed. 2009). The Appeal Board has stated that "[p]rima facie evidence must be legally sufficient to establish a fact or case unless disproved," *Diablo Canyon,* ALAB-653, 16 NRC at 72, and that, in the context of waiver petitions, "[w]e have found that a prima facie showing . . . is one that is 'legally sufficient to establish a fact or case unless disproved,'" *Seabrook,* ALAB-895, 28 NRC at 22 (quoting *Diablo Canyon,* ALAB-653, 16 NRC at 72). Thus, the existence (or not) of a *prima facie* case is determined based on the sufficiency of the movant's assertions and informational/evidentiary support alone. *See* Tr. at 257 (*prima facie* showing is one that is sufficient to withstand a demurrer). We need not find that SLOMFP would ultimately prevail on the merits for a waiver, or whether the fact or case has been disproved, in order to certify its waiver petition to the Commission. Indeed, the issue of the merits of the waiver request is not before us. *See* 10 C.F.R. § 2.335(c)-(d). We only address whether SLOMFP has provided sufficient information in support of its waiver request to warrant requiring a substantive response and rebuttal by PG&E and the NRC Staff.[52]

We find, for the following reasons, that SLOMFP has made a *prima facie* showing with regard to earthquake risks at DCNPP that satisfies 10 C.F.R. § 2.335(b) and each of the four waiver factors set forth in *Millstone.*

The first *Millstone* factor is that "the rule's *strict* application 'would not serve the purposes for which [it] was adopted.'" *Millstone,* CLI-05-24, 62 NRC at 559-60 (emphasis added). As we see it, a central purpose of Part 51 Appendix B and 10 C.F.R. § 51.53(c)(2) is to allow the NRC to comply with NEPA by identifying and evaluating certain environmental impacts (in this instance, relating to the storage of spent fuel) that are generic to reactor license renewal proceedings, and then allowing the Applicant and NRC to dispense with site-specific evaluations of such environmental impacts in situations covered by the generic analysis. *See* PG&E Answer at 24 (quoting and agreeing with Curran Decl. ¶ 4). We reject the implication that the sole purpose of the Part 51 rules is simply to expedite the NEPA process and to apply the generic determinations without exception. *See id.* Instead, as the NRC Staff stated, the purpose of these regulations is to apply generic determinations where the generic determinations are appropriate. *See* Tr. at 263.

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[51] The NRC Staff agreed that the term "*prima facie*" in the context of the NRC's waiver rules is to be interpreted as it is normally interpreted in a legal context. *See* Tr. at 256-57.

[52] A *prima facie* case is one that is sufficient to withstand a demurrer. In this respect, it is akin to the Federal Rules that allow for the dismissal of a lawsuit (without ever getting to a trial or motion for summary judgment) "for failure to state a claim upon which relief can be granted." Fed. R. Civ. P. 12(b)(6).

We conclude that SLOMFP has made a *prima facie* showing that a "strict" application of Appendix B and 10 C.F.R. § 51.53(c)(2) would not serve the foregoing purpose. Compliance with NEPA requires that, if new and significant information arises between the issuance of the EIS and the Agency decision, then the Agency must revise its EIS and consider such information. *Marsh v. Oregon Natural Resources Council,* 490 U.S. at 371-72. Here, the GEIS, which is the foundation of the regulations from which waiver is sought, was issued in 1996. During the intervening 14 years, the NRC has conducted further analyses of the environmental impacts of spent fuel. These analyses include NUREG-1738 issued in 2001 and the 2009 Draft GEIS.[53] Each of these analyses notes that its assessment of the seismic risks and associated environmental impacts of spent fuel storage excludes western nuclear reactors and refers specifically to the exclusion of DCNPP. These new analyses, as discussed below, provide at least a *prima facie* showing that the "strict application" of the NRC regulations prohibiting the site-specific consideration of the environmental impacts of spent fuel would not serve the purpose of those regulations. In our view, SLOMFP has raised a material question as to whether, in light of current knowledge about the seismic risks at DCNPP, the generic treatment of spent fuel, as per the 1996 GEIS and the regulations based on it, should be strictly applied. We emphasize — we do not make a final determination that the first factor of *Millstone* has been met, only that a *prima facie* showing has been made.[54]

As to the second *Millstone* factor, we conclude that SLOMFP has made a *prima facie* showing that "the movant has alleged 'special circumstances' that were 'not considered . . . in the rulemaking proceeding leading to the rule sought to be waived,'" *Millstone,* CLI-05-24, 62 NRC at 560, with regard to the risks of seismically induced SFP accidents at DCNPP. The Staff points out that the 1996 GEIS is the controlling document analyzing generic environmental impacts for license renewal. *See* Staff Waiver Response at 10. We agree. However, SLOMFP has pointed to statements in the 2009 Draft GEIS suggesting that the SFP accident analysis in the 1996 GEIS no longer accurately reflects the seismic conditions known to exist at DCNPP. *See, e.g.,* Petition at 16-17; Curran Decl. ¶ 7. As SLOMFP notes, the 2009 Draft GEIS states that the "key document" relied upon for its updated conclusion on spent fuel storage risks in the seismic context is NUREG-1738. *See* 2009 Draft GEIS at E-33 to -34. But both NUREG-1738 and the 2009 Draft GEIS state that seismic characteristics at DCNPP, as well as at two other nuclear plant sites, exclude it from the general conclusions reached

[53] The fact that the 2009 Draft GEIS is not final is not crucial. The relevant point is that the 2009 Draft GEIS contains new and significant information, not that the document is labeled "draft."

[54] Whether or not the asserted effect upon the validity and applicability of the 1996 GEIS to Diablo Canyon of this "new information" is "disproved" is a matter for the Commission to weigh in examining the merits of the waiver petition.

in NUREG-1738. *See id.* at E-33 & n.(a); NUREG-1738 at A2B-4. We do not believe, as the Staff suggests, Tr. at 258-59, that the blunt exclusions of the 2009 Draft GEIS and NUREG-1738 are *neutral* with regard to whether NRC's 1996 GEIS covered, and still accurately covers, the seismic situation at DCNPP. In the absence of evidence that the 1996 GEIS relies on sufficient information to reach a conclusion applicable to DCNPP regarding the impacts of a seismically induced SFP accident, we find that SLOMFP has made at least a *prima facie* showing that special circumstances exist at DCNPP that render the generic SFP conclusions inapplicable to DCNPP, but only with regard to *seismically induced* SFP accidents.

Turning to the third *Millstone* factor we conclude, for reasons largely explained above, that SLOMPF has made a *prima facie* showing that the special circumstances that are the basis of the waiver request are "'unique' to the facility rather than 'common to a large class of facilities.'" *Millstone,* CLI-05-24, 62 NRC at 560. The entire premise of this waiver request is that the seismic risk factors at the Diablo Canyon facility are different. The 2009 Draft GEIS and NUREG-1738 contain new and significant information — that Diablo Canyon is not covered by the NRC's generic environmental analysis of seismic risks — that is unique to DCNPP. As stated above, absent concrete rebuttal, this unique problem can be fairly inferred to the 1996 GEIS. The existence of special seismic circumstances unique to DCNPP, and not considered in the 1996 GEIS or the 2009 Draft GEIS (including NUREG-1738), is underscored by the recent discovery of the Shoreline Fault that is the subject of Contention EC-1, which we admit in this proceeding. *See supra* Section V.A. Both PG&E and the NRC Staff were questioned about the Shoreline Fault in the discussion of EC-2. As the Staff acknowledged at oral argument, the Shoreline Fault is not considered in either the 1996 GEIS or the 2009 Draft GEIS.[55] *See* Tr. at 269.

Finally, we conclude that SLOMFP has made a *prima facie* showing regarding the fourth *Millstone* factor — that EC-2 raises new and significant information that may constitute a "significant" NEPA-related issue.[56] SLOMFP has pointed to NRC regulations requiring the consideration of new and significant information that arises after the GEIS is issued. *See* Petition at 7 (citing 10 C.F.R. §§ 51.53(c)(iv),

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[55] We recognize that the preliminary deterministic analysis by the NRC Staff indicates that the seismic impacts of the Shoreline Fault are already encompassed in the site-specific seismic analyses already done for the DCNPP, including the previously discovered Hosgri Fault. However, as those results are, at this point, neither before us nor indicated to have stronger bearing than their "preliminary" designation, they cannot be a factor in determining whether to grant the requested waiver.

[56] Because the rules in question, as well as the contention itself, address compliance with NEPA and not safety issues under the AEA, we agree with SLOMFP and the NRC Staff that SLOMFP must make a showing that, in this context, the waiver is needed to address a significant *environmental* issue instead of a significant *safety* issue. *See* Staff Waiver Response at 4 n.3; SLOMFP Waiver Brief at 3.

51.92(a)(2)); Tr. at 221. These regulations are required by *Marsh v. Oregon Natural Resources Council,* 490 U.S. at 371-72. Because we find that SLOMFP has made a *prima facie* showing that the statements in the 2009 Draft GEIS, as well as the discovery of the Shoreline Fault, undercut the applicability to DCNPP of the 1996 GEIS's generic findings regarding seismically induced SFP accidents, we find that SLOMFP has also made a *prima facie* case that new and significant information exists that needs to be considered under NEPA.[57] Thus, we conclude that SLOMFP has made a *prima facie* case that a waiver (limited to seismic issues) would be required to address a significant NEPA-related issue with respect to EC-2.

In sum, while not ruling on the merits of whether SLOMFP's waiver request should be granted, we find that SLOMFP has proffered sufficient information or evidence in favor of a waiver with respect to EC-2 to survive a demurrer (i.e., to warrant requiring that PG&E and the NRC Staff proffer information and/or evidence opposing such a waiver). We conclude that SLOMFP has made a *prima facie* case that there are special circumstances at DCNPP with regard to the environmental impacts and risks of earthquake-induced spent fuel pool accidents so as to warrant the waiver of those portions of 10 C.F.R. Part 51, Subpart A, Appendix B and 10 C.F.R. §§ 51.53(c)(2) and 51.23 classifying such spent fuel impacts as Category 1, and to warrant that these impacts be assessed on a site-specific basis for DCNPP. In accordance with 10 C.F.R. § 2.335(d), this ruling is automatically certified to the Commission.[58]

4. Analysis and Ruling Regarding Contention EC-2

As stated at the outset, EC-2 must survive two hurdles. First, SLOMFP must make a *prima facie* showing for a waiver. Second, EC-2 must be otherwise admissible under the criteria specified in 10 C.F.R. § 2.309(f)(1)(i)-(vi). If EC-2

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[57] This is in contrast to the *Turkey Point* case cited by the NRC Staff in which the petitioner never even asked for a waiver and does not appear to have provided any evidence of new and significant information calling into question the Commission's earlier determination that SFP risk from hurricanes is very low for all plants. *See Turkey Point,* CLI-01-17, 54 NRC at 22-23; *see also* Staff Waiver Response at 9.

PG&E's references to the denial of the spent fuel rulemaking petition are similarly inapposite. *See* PG&E Answer at 29-30 (citing 73 Fed. Reg. 46,204). Whether the impacts of spent fuel storage may generally be addressed generically across nuclear plants in the United States does not speak conclusively to whether an exception might exist to one particular portion of the generic analysis at one or a limited number of plants. Additionally, as PG&E acknowledged at oral argument, the denial of the petition for rulemaking predated the discovery of the Shoreline Fault. *See* Tr. at 241.

[58] Given that the briefing before the Board addressed whether or not SLOMFP presented a *prima facie* case for a waiver, we urge the Commission to allow the parties to brief the merits of whether a waiver should be granted.

is not otherwise admissible, then the contention will be dismissed by the Board now, and the Commission need not decide the merits of the waiver request. As discussed below, the Board concludes that EC-2 meets all of the normal admissibility criteria.

The most hotly contested admissibility issue is whether EC-2 is within the scope of this license renewal proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii). As SLOMFP concedes, absent a waiver, EC-2 would be inadmissible as outside the scope of this proceeding. *See* Tr. at 195-96. Specifically, the assertion that the ER should contain a site-specific analysis of earthquake-induced environmental impacts of onsite spent fuel storage is contrary to the Part 51 regulations and requires that they be waived. That is the whole point of SLOMFP's waiver request. This Board concludes that, if the Commission grants the waiver, then EC-2 is within the scope of this proceeding as required by 10 C.F.R. § 2.309(f)(1)(iii).

We reject PG&E's argument that EC-2 is outside of the scope of this proceeding because it raises an impermissible challenge to the CLB and because it raises environmental issues that have "no unique relevance . . . to the [license] renewal term." PG&E Answer at 25, 30. As the Commission has taught, although the safety analysis in license renewals is restricted to certain aging management issues, the NEPA environmental analysis is not.[59]

We next turn to the proposition that EC-2 is a contention that seeks a SAMA analysis for spent fuel storage, and therefore is defective because the Commission has ruled that SAMA analyses apply "to nuclear *reactor* accidents, not spent fuel storage accidents." *Turkey Point,* CLI-01-17, 54 NRC at 21. Although the terms "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated these terms clearly limit them to nuclear reactors, and do not include spent fuel pools or storage.[60] The Commission has very recently reiterated that SAMA analyses are not required for the spent fuel storage impacts associated

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[59] The Commission has clearly stated that, in the context of license renewal, "[t]he Commission's AEA review under Part 54 does not compromise or limit NEPA." *Turkey Point,* CLI-01-17, 54 NRC at 13. Although the Part 54 review focuses on aging of a limited set of systems, structures, and components, rather than on the CLB, the NEPA review is not so restricted. Indeed, the Commission's Part 51 regulations dealing with license renewal never even mention the term "CLB." The Commission has ruled: "the two inquiries are analytically separate: one (Part 54) examines radiological health and safety, while the other (Part 51) examines environmental effects of all kinds. Our aging-based safety review does not in any sense 'restrict NEPA' or 'drastically narrow[ ] the scope of NEPA.'" *Id.* The NEPA review in license renewal proceedings is not limited to issues outside the CLB. *See* Tr. at 152.

[60] *Turkey Point,* CLI-01-17, 54 NRC at 21 (citing Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138 (Aug. 8, 1985)); *see also Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 288-93 (2006); *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-10, 70 NRC 51, 106-07 (2009).

with license renewals.[61] We agree that, to the extent EC-2 is construed as a SAMA contention, it would not be admissible.

It is not clear whether EC-2 is a SAMA contention. On the one hand, the header for the EC-2 portion of the Petition states "Contention EC-2: Failure of SAMA Analysis to Address Environmental Impacts of Spent Fuel Pool Accidents." Petition at 16. But the "Statement of the Contention" (pursuant to 10 C.F.R. § 2.309(f)(1)(i)) never uses the term SAMA:

> PG&E's Environmental Report is inadequate to satisfy NEPA because it does not address the airborne environmental impacts of a reasonably foreseeable spectrum of spent fuel pool accidents, including accidents caused by earthquakes.

Id. The text of the Petition focuses on this "Statement of the Contention" and never mentions NRC's SAMA regulation — 10 C.F.R. § 51.53(c)(3)(ii)(L). The Petition's section entitled "Brief Summary of Basis for Contention" (pursuant to 10 C.F.R. § 2.309(f)(1)(ii)) focuses on the risk of earthquakes at DCNPP and the need for the ER to address the impacts that could result from such an accident to PG&E's spent fuel pool, mentioning the word SAMA only once. This reference is minor and incidental to EC-2. *Id.* at 17 ("This conclusion is consistent with PG&E's SAMA analysis."). The remainder of the EC-2 discussion, covering other admissibility factors (scope, materiality, concise statement of alleged facts) never mentions the term SAMA.[62]

PG&E did not focus on the SAMA issue at all, only raising the issue (i.e., that the requirement to perform a SAMA analysis does not apply to SFP accidents) in a footnote at the end of an eleven-page discussion of EC-2 in its brief. PG&E Answer at 31 n.22. Likewise, the NRC Staff brief only raises this issue as a subsidiary clause (in a sentence dealing with the value of California farmland). Staff Answer at 39. This issue was substantively addressed by the parties during the oral argument, when counsel for PG&E pointed out that the SAMA requirement only applies to reactors, and confusion ensued as to whether EC-2 is necessarily a SAMA contention.[63] Tr. at 245-49.

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[61] *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 471-75 (2010) (affirming the denial of Contention 4 in LBP-06-23, 64 NRC at 288-93).

[62] We note also that neither the Waiver Request relating to EC-2 nor the Curran Declaration supporting the request mentions the term SAMA.

[63] SLOMFP further clarified at oral argument that, in order to resolve EC-2, "the first step would be to look at the risk. You'd have to do the analysis." Tr. at 207. Similarly, while arguing that SAMA applies only to nuclear reactors and not to SFPs, PG&E acknowledged that "NEPA requires you to evaluate alternatives. That's the genesis of the requirement for a [SAMA]." Tr. at 250. Thus, the basis for EC-2, though it may have been incorrectly labeled as SAMA, appears to be the more general

(Continued)

Based on the foregoing, we conclude that SLOMFP's "Statement of the Contention" for EC-2 is the best statement of what SLOMFP wants to put into contention in this proceeding. Throughout our discussion of all of SLOMFP's contentions, we use the "Statement of the Contention" as the contention. In the case of EC-2, this Statement does not refer to SAMA analysis. Inasmuch as EC-2 does not assert a SAMA contention it does not run afoul of the *Turkey Point* decision, which ruled that SAMA analyses only apply to nuclear reactors.[64]

EC-2 also satisfies 10 C.F.R. § 2.309(f)(1)(i) and (ii), as SLOMFP has provided both a statement of the contention and a brief explanation of the basis or theory of the contention. Neither PG&E nor the Staff argues that those portions of section 2.309(f)(1) have not been met.

In addition, the Board concludes that EC-2 is material to the NEPA analysis for license renewal, as required by 10 C.F.R. § 2.309(f)(1)(iv). We reject the argument that the "impact" of a spent fuel pool accident caused by an earthquake at DCNPP can be disregarded under NEPA because that "impact" will be (a) "the same as," (b) "no worse than," or (c) "bounded by" the *impact* of a spent fuel pool accident caused by any other factor. While PG&E and the Staff assert that the environmental impacts of an SFP accident are no worse than those of the severe (reactor core) accidents already considered in the NEPA analysis, and therefore their "environmental impacts" have been considered, this does not eliminate the necessity for assessment of the likelihood of such incidents and their concomitant effect upon the overall likelihood of a radiation release of that magnitude.

NEPA requires the NRC to make an informed decision regarding the environmental consequences of the grant of this license renewal, and such a decision must either include consideration of the likelihood and consequences of such an event or indicate through reasonable analyses satisfactory under Ninth Circuit guidelines that the event is remote and speculative as the term is used in NEPA analyses. We believe that NEPA's duty to consider the environmental impacts of a proposed action incorporates, at least implicitly, considerations of the probability of a particular consequence occurring. Further, it seems clear that the measures available to mitigate against an earthquake-induced meltdown of spent fuel in a spent fuel pool are likely to vary significantly from the mitigation measures available for reactor core damaging events (severe accidents).

We also conclude that SLOMFP has provided sufficient "alleged facts or expert opinion" to support EC-2 as required by 10 C.F.R. § 2.309(f)(1)(v). The

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requirements of NEPA. And while the 1996 GEIS's analysis of spent fuel impacts would ordinarily satisfy NEPA, SLOMFP's waiver request, if granted, would allow it to argue that NEPA requires an additional, site-specific analysis of the impacts of an earthquake-induced SFP accident at DCNPP.

[64] Alternatively, if SLOMFP intended to raise a SAMA analysis issue via EC-2, we reject that portion of the contention as improper and narrow EC-2 to the non-SAMA scope set forth in the "Statement of the Contention."

contention asserts that PG&E's ER lacks information that it should contain (if the waiver is granted), namely site-specific information regarding the environmental impacts of an SFP accident caused by an earthquake. Thus, SLOMFP's support for why this information is required — i.e., Ms. Curran's affidavit in support of the waiver — and its identification of the absence of the information in PG&E's ER provide the requisite support for EC-2. No law or regulation requires the submission of an expert opinion at the contention admissibility stage.[65] *See* Staff Answer at 9-10; PG&E Answer at 32 n.24 (citing *Fansteel, Inc.* (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 203 (2003)). Whether this supporting information is ultimately sufficient to show that the ER for DCNPP should not have relied on the GEIS's conclusions regarding SFP accidents caused by earthquakes goes to the merits of the contention and not to its admissibility.

EC-2 also satisfies 10 C.F.R. § 2.309(f)(1)(vi). Contrary to PG&E's assertion, *see* PG&E Answer at 31, SLOMFP does cite a particular portion of the ER, page 4-1, from which it asserts that the necessary information is missing. *See* Petition at 16. It then identifies the information it asserts is missing (an analysis of the potential for and consequences of an SFP fire at DCNPP that includes site-specific information on SFP fires caused by earthquakes) and states why it believes that information is required to be included in PG&E's ER. *See id.* at 16-19. Again, the necessity of this omitted information is dependent, in part, on the waiver request. However, because 10 C.F.R. § 2.309(f)(1)(vi) requires only an "identification of each failure [to include required information] and the supporting reasons for the petitioner's belief" that such a failure exists, EC-2 raises a genuine dispute with the application.[66]

The Board notes that, to the extent EC-2 challenges PG&E's reliance on the GEIS discussion of SFP accidents caused by anything other than earthquakes, it is inadmissible.[67] We found above that SLOMFP has made a *prima facie* case of special circumstances at DCNPP with respect to seismically induced SFP accidents but not that it has made a *prima facie* case of special circumstances with

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[65] In contrast, we note that the *petition for waiver* must be accompanied by an "affidavit that identifies the specific aspect or aspects of the subject matter of the proceeding as to which 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 affidavit must "state with particularity the special circumstances alleged to justify the waiver." Such an affidavit may involve the assertion of facts, and does not require the assertion of an expert opinion. The Curran Declaration recites and states facts, and meets the foregoing criteria, but we do not deem it to be a declaration by an "expert."

[66] Additionally, we note that SLOMFP's argument is that new information in the 2009 Draft GEIS undermines the conclusions of the 1996 GEIS regarding seismically induced SFP accidents. *See, e.g.,* Tr. at 198-99. Thus, contrary to the NRC Staff's position, EC-2 in fact challenges PG&E's reliance on the 1996 GEIS, not the adequacy of the 2009 Draft Revised GEIS. *See* Staff Answer at 36-37.

[67] Indeed, SLOMFP agrees that EC-2 focuses on SFP accidents caused by earthquakes. *See* Tr. at 203.

respect to SFP accidents with other causes. Thus, to the extent that EC-2 raises the issue of SFP accidents not caused by earthquakes, it is outside the scope of this proceeding. Thus, we revise and restrict Contention EC-2 to the following:

> PG&E's Environmental Report is inadequate to satisfy NEPA because it does not address the airborne environmental impacts of a spent fuel pool accident caused by an earthquake adversely affecting DCNPP.

In conclusion, we rule that, as narrowed, EC-2 presents an admissible contention alleging that PG&E's ER fails to comply with 10 C.F.R. Part 51 because it fails to address the airborne environmental impacts of an SFP accident at DCNPP caused by an earthquake. The fate of EC-2 therefore rests with the Commission, which must determine whether to grant a waiver, i.e., whether the new information and earthquake situation at Diablo Canyon constitute special circumstances warranting site-specific consideration of these risks under NEPA. *See* 10 C.F.R. § 2.335(b), (d).

C. Contention EC-3

Contention EC-3 is similar to Contention EC-2 in that both of them require a waiver of NRC's Part 51 regulations in order to be admissible. Both contend that PG&E's ER should address environmental impacts associated with the onsite storage of spent fuel and therefore both run afoul of 10 C.F.R. Part 51, Appendix B (which classifies onsite spent fuel storage as a Category 1 issue) and 10 C.F.R. § 51.53(c)(2) (which specifies that "the environmental report need not discuss any aspect of spent fuel"). Thus, both require a waiver pursuant to 10 C.F.R. § 2.335. The key difference is that EC-2 deals with spent fuel pool incidents initiated by *earthquakes* and EC-3 deals with spent fuel pool incidents initiated by *terrorist attacks.* As discussed below, under the requirements related to waivers, this makes a crucial difference.

1. Statement of Contention EC-3

Proposed Contention EC-3, entitled "Failure to Address Environmental Impacts of an Attack on the Diablo Canyon Spent Fuel Pool," states:

> The Environmental Report fails to satisfy NEPA because it does not evaluate the environmental impacts of an attack on the Diablo Canyon spent fuel pool during the operating license renewal term.

Petition at 20.

SLOMFP requests a waiver of 10 C.F.R. Part 51, Appendix B, and 10 C.F.R.

§ 51.53(c)(2) in connection with EC-3. Waiver Petition at 1; *see also supra* Section V.B.1.b. Without a waiver, EC-3 (a) contravenes these regulations and thus is inadmissible under 10 C.F.R. § 2.335(a); and (b) is not "within the scope" of this proceeding as required by 10 C.F.R. § 2.309(f)(1)(iii).

Our duty at this juncture is to decide whether SLOMFP's waiver request makes a *prima facie* showing under 10 C.F.R. § 2.335(c)-(d), and, if so, then to decide whether EC-3 is otherwise admissible under 10 C.F.R. § 2.309(f)(1).

2. Arguments Regarding Contention EC-3

a. Arguments Regarding Admissibility of Contention EC-3

Like Contention EC-2, Contention EC-3 focuses on the 1996 GEIS, wherein NRC evaluated the environmental impacts of spent fuel storage in the license renewal context. The difference between EC-2 and EC-3 is that the former focuses on earthquakes while the latter focuses on terrorist attacks. *See* Tr. at 281-82. SLOMFP's primary argument in support of EC-3 is that, subsequent to the 1996 GEIS, new and significant information has come to light that must be considered, and that warrants that the ER for DCNPP include a site-specific analysis of the environmental impact of terrorist attacks on the spent fuel pool. Petition at 20. The crucial new information, according to SLOMFP, is the information contained in the 2009 Draft GEIS, which concludes that the environmental impacts of spent fuel storage are low "based on analyses and mitigation measures that [the NRC] has never mentioned before." *Id.* SLOMFP says that these mitigation measures relied on by NRC "include 'mitigation enhancements' and 'NRC site evaluations of every SFP in the United States.'" *Id.* (quoting 2009 Draft GEIS at E-36). Thus, SLOMFP argues, "the NRC appears to be relying on site-specific analyses and mitigation measures to reduce the environmental impacts of spent fuel pool attacks" and, therefore, the ER should also address these impacts on a site-specific basis. *Id.*; Tr. at 295. SLOMFP also asserts that NRC should provide citations to and disclose publicly releasable portions of the new references underlying the 2009 Draft GEIS. Petition at 21.

Both PG&E and the NRC Staff assert that EC-3 is outside the scope of this proceeding, in derogation of 10 C.F.R. § 2.309(f)(1)(iii), because it raises a Category 1 issue.[68] *See* PG&E Answer at 33; Staff Answer at 40.

In addition, PG&E argues that, even if a waiver were granted, EC-3 would be inadmissible — raising several defenses similar to those asserted for contention EC-2. PG&E says that even "if there were sabotage, the 'resultant core damage

[68] The argument that EC-3 is "outside of the scope" of a license renewal proceeding is the converse of the waiver petition. If the waiver is granted, then EC-3 is within the scope. If not, it is outside of the scope.

and radiological releases would be no worse than those expected from internally initiated events.'" PG&E Answer at 37 (quoting 1996 GEIS at 5-18). PG&E says that SLOMFP has not provided any factual or expert support to raise a genuine dispute with that conclusion. *Id.* PG&E also argues that SLOMFP has not suggested a nexus between sabotage and aging management and that SLOMFP has not suggested examples or costs and benefits of additional mitigation alternatives to address the impact of a terrorist attack on the DCNPP SFP. *Id.* Finally, PG&E asserts that SLOMFP's request for the NRC to disclose documents relied upon in the 2009 Draft GEIS is outside the scope of this proceeding. *Id.*

The NRC Staff asserts that EC-3 is inadmissible because it "lacks an adequate factual basis," Staff Answer at 40, and does not contain sufficient information to raise a genuine dispute with PG&E's application. *Id.* at 42-45. The Staff points out that the 1996 GEIS specifically discussed the risk from sabotage, *id.* at 40, and that it is the "operative document in this proceeding." *Id.* at 42. Thus, because SLOMFP focuses on the 2009 Draft GEIS, it does not raise a dispute with the 1996 GEIS, the document on which PG&E relies. *Id.* at 42-43. The Staff also asserts that SLOMFP has not explained how the 2009 Draft GEIS undermines the conclusions in the 1996 GEIS, particularly when the 2009 Draft GEIS states that studies performed since 2001 support the conclusion that the risk of an SFP fire from a terrorist attack is very low. *Id.* at 43-45.

SLOMFP asserts, in its reply, that the 1996 GEIS considered only sabotage against reactors and not sabotage against SFPs. Reply at 14-15. "Both the means of attack and the alternatives for avoiding or mitigating attacks would be different for a reactor than for a spent fuel pool, and thus the environmental analysis of those impacts would be different." *Id.* at 15. SLOMFP also claims that its assertion that "NRC relied on site-specific measures to evaluate the impacts of attacks on the Diablo Canyon spent fuel pools" is factually supported by NRC's own statement that it performed "'site evaluations of every SFP in the United States.'" *Id.* (quoting 2009 Draft GEIS at E-36).

b. Arguments Regarding Waiver Petition

SLOMFP requests a waiver in connection with Contention EC-3 because it raises a Category 1 issue. Reply at 14; *see also* Tr. at 281. SLOMFP asserts that the 2009 Draft GEIS "strongly indicates that in concluding that the environmental impacts of spent fuel storage are small, the NRC relied on analyses and mitigation measures that are site-specific" and that it does not provide adequate references to support its generic spent fuel storage conclusions. Waiver Petition at 2. In the declaration attached to the Waiver Petition, SLOMFP's counsel asserts that the 2009 Draft GEIS "admits that to some extent, mitigation measures at all nuclear reactor spent fuel pools (including DCNPP) are site-specific" and that it "relies for its conclusions on 'NRC site evaluations of every SFP in the United

States.'" Curran Decl. ¶¶ 5, 10 (quoting 2009 Draft GEIS at E-35 to -36). She argues that the reliance on individual site assessments "is not consistent with a generic risk determination" and that the individual site assessments and mitigation measures "undermine the NRC's claim that it can make a generic assessment of the environmental impacts of intentional attacks on the DCNPP spent fuel pools." *Id.* ¶¶ 10-11. At oral argument, SLOMFP's counsel added:

> It seems like the NRC is having it both ways. It's saying to the public . . . [t]he NRC takes spent fuel pool risk very seriously and, therefore, it has done a separate analysis of every single spent fuel pool in the country. Terrific. But if you're going to do that, you can't claim it's generic. If you're going to say to people, we're protecting you because we looked at your nuclear plant, you know, to the neighbors at Diablo Canyon, we're looking at Diablo Canyon but we're not going to tell you what we did because its generic. That's — you can't have it both ways.

Tr. at 295.

When asked about the *Millstone* factor three (uniqueness), counsel for SLOMFP responded that the fact that NRC conducted a site-specific review of every site in the United States is a "way of saying each plant is unique." Tr. at 293.

Both PG&E and the NRC Staff assert that SLOMFP has not shown that it meets any of the four *Millstone* waiver factors with regard to EC-3. *See* PG&E Answer at 33-36; Staff Waiver Response at 11-13. PG&E asserts that SLOMFP has not satisfied the first *Millstone* factor (strict application of the regulation would not serve the purpose of the regulation) because applying 10 C.F.R. Part 51, Appendix B, Table B-1 *would* serve the purpose of the rule "by precluding site-specific consideration of spent fuel storage issues." PG&E Answer at 33.

PG&E also asserts that SLOMFP fails the second *Millstone* factor because there are no special circumstances that were not considered in the 1996 GEIS, which specifically considered sabotage. *Id.* The fact that NRC's 2009 Draft GEIS relied on site-specific analyses and mitigation measures does not, according to PG&E, constitute a "special circumstance" related to DCNPP or mean that "NRC should waive its regulations to permit a site-specific challenge to the impacts of an attack on the spent fuel pool at Diablo Canyon." *Id.* at 34. PG&E argues that site-specific data and mitigation plans, instead of precluding a generic determination, actually enabled NRC to make a generic determination. *Id.* PG&E cites the Second Circuit's decision in *New York v. NRC,* noting that the NRC required the mitigation measures it studied to be implemented at all nuclear plants and that the site-specific studies demonstrated the effectiveness of those mitigation measures so that no additional plant-specific reviews were necessary. *Id.* at 34-35 (citing *New York v. NRC,* 589 F.3d at 555).

As to uniqueness, the third *Millstone* waiver factor, PG&E asserts that SLOMFP has not shown that any risk associated with an attack on SFPs is unique

to DCNPP because (1) other plants are "located in agricultural areas, near larger populations, or adjacent to important fisheries or industries"; (2) SLOMFP has not identified any unique aspect of the DCNPP SFPs; and (3) SLOMFP has not shown that impacts from an attack on an SFP are aging-related. *Id.* at 35-36.

Focusing on the fourth *Millstone* factor, PG&E argues that, because the NRC has addressed and will continue to address safety-related aspects of mitigation measures for attacks on SFPs in other contexts, a waiver in this proceeding is not necessary to address any significant safety issue. *Id.* at 36.

The NRC Staff agrees with PG&E that SLOMFP has not shown that it satisfies the first *Millstone* factor because SLOMFP has not explained how the site-specific nature of SFPs would alter the conclusion that SFP accident impacts would be much less severe than reactor accident impacts. Staff Waiver Response at 11-12. Next, the Staff argues that SLOMFP has not shown special circumstances with regard to DCNPP because all SFPs will have "a unique location, design, and security program," and the Commission must have been aware of this circumstance when it promulgated the 1996 GEIS. *Id.* at 12. Third, the Staff asserts that the site-specific nature of SFP analyses would apply to all nuclear facilities and that SLOMFP therefore has not shown that this issue is unique to DCNPP. *Id.* Fourth, the Staff argues that, because SLOMFP has not demonstrated how a site-specific analysis of attacks on the SFP would change the GEIS's conclusion that the environmental impact of continued onsite spent fuel storage would be small, EC-3 does not raise a significant problem. *Id.* at 12-13.

Additionally, the Staff cites the Commission's denial of the rulemaking petition underlying *New York v. NRC,* noting that the Commission concluded that the risk of a zirconium fire would be "'very low' in light of the 'physical robustness' of spent fuel pools, security measures, mitigation measures, and the NRC's site evaluations." *Id.* at 13 (quoting 73 Fed. Reg. at 46,208). Finally, the Staff again notes that the 1996 GEIS, not the 2009 Draft GEIS, is the controlling document in this proceeding and asserts that SLOMFP has not shown that the 1996 GEIS relies on insufficient information. *Id.* at 13.

In its reply, SLOMFP distinguishes *New York v. NRC* and the underlying denial of the rulemaking petition as not addressing "whether, in an individual licensing proceeding where the NRC relies on site-specific mitigation measures for a finding of no significant impact, NEPA requires disclosure and discussion of those site-specific impacts in the [ER] for the specific facility." Reply at 15. SLOMFP's brief of EC-3 regarding the *Millstone* test closely parallels its discussion of EC-2. *See supra* Section V.B.2.b.

3. Analysis and Ruling Regarding Waiver Petition

In order for EC-3 to be "within the scope" of this proceeding, as required by 10 C.F.R. § 2.309(f)(1)(iii), and not violate 10 C.F.R. §§ 2.335(a), SLOMFP

must obtain a waiver under 10 C.F.R. § 2.335(d). Specifically, EC-3 requires the waiver of NRC's environmental regulations that provide, in a license renewal context, the ER does not need to address environmental impacts associated with the spent fuel because NRC has already considered such issues on a generic and nationwide basis and has classified such impacts as Category 1 (*i.e.,* 10 C.F.R. Part 51, Subpart A, Appendix B, and 10 C.F.R. §§ 51.53(c)(2), 51.23). In the context of EC-3, SLOMFP requests the waiver of these spent fuel pool regulations to require the site-specific consideration of environmental impacts caused by terrorist attacks.

The Board concludes that SLOMFP has failed to make a *prima facie* showing that there are "special circumstances with respect to the subject matter [of the Diablo Canyon license renewal] proceeding . . . such that the application of the [Part 51 regulations] would not serve the purposes for which the rule or regulation was adopted." 10 C.F.R. § 2.335(b). Specifically, SLOMFP has failed to make a showing that there is anything unique about the threat of a terrorist attack at the Diablo Canyon nuclear power plant or its spent fuel pool. Thus, the waiver petition fails the third prong of the *Millstone* test, i.e., a showing that the special circumstances at DCNPP are "*unique* to the facility rather than common to a large class of facilities." *Millstone,* CLI-05-24, 62 NRC at 560 (internal quotes omitted).

SLOMFP's principal argument in support of the waiver is that, subsequent to the 1996 GEIS (the basis for the Part 51 regulations) and the September 11, 2001 attacks, new and significant information has arisen that demonstrates that NRC has done "more rigorous accident progression analyses," has taken into account "recent mitigation enhancements" at each site, and has done "site evaluations of every SFP in the United States" of the risk of an SFP fire. Curran Decl. ¶¶ 5, 9-10 (quoting 2009 Draft GEIS at E-35 to -36). SLOMFP claims that this new information represents special circumstances that support a waiver. Perhaps so.[69] But the same information that shows that NRC has done a site evaluation of every SFP in the United States contradicts the proposition that the need for a waiver is "unique to the [DCNPP] facility." *Millstone,* CLI-05-24, 62 NRC at 560. We reject the proposition that a review of every site in the United States is a "way of saying each plant is unique." Tr. at 293. If this were true, then a "terrorist attack" waiver would be appropriate for every spent fuel pool site in the United States.

Our ruling that SLOMFP has not made a *prima facie* case for waiver to support EC-3 (impacts triggered by terrorist attacks) contrasts with our ruling that SLOMFP has made such a case to support EC-2, as narrowed (impacts

[69] We find PG&E's reference to the Second Circuit's decision in *New York v. NRC* to be of little relevance to SLOMFP's waiver request. First, that decision involved a petition challenging an NRC refusal to undertake a new rulemaking. And second, the standard of review of agency decisions in the Courts of Appeals is extremely deferential. *See New York v. NRC,* 589 F.3d at 555.

triggered by earthquakes). This is because there is reasonable support for the EC-2 proposition that the risk of earthquake at Diablo Canyon is unique and different from the generic risk of earthquakes at other nuclear power plants (e.g., 2009 GEIS excluding western plants, NUREG-1738 excluding DCNPP, recent discovery of the Shoreline Fault). However, we have been given little or no reason to think that there is a unique risk of terrorist attack at DCNPP.[70]

Thus, because SLOMFP has not made a *prima facie* showing that a waiver is warranted with respect to EC-3, we may not further consider the issue of the waiver for this contention. *See* 10 C.F.R. § 2.335(c).

4. Analysis and Ruling Regarding Admissibility of Contention EC-3

SLOMFP agrees that absent a waiver, EC-3 is not admissible. *See* Tr. at 281. Because we find that SLOMFP has not made a *prima facie* showing that a waiver is justified with respect to EC-3, the contention is outside the scope of this proceeding under 10 C.F.R. § 2.309(f)(1)(iii) and is therefore inadmissible.

D. Contention EC-4

1. Statement of Contention EC-4

Contention EC-4, entitled "Failure to Address Environmental Impacts of Attack on Diablo Canyon reactor," states as follows:

> The Environmental Report fails to satisfy the National Environmental Policy Act (NEPA) because it does not discuss the cost-effectiveness of measures to mitigate the environmental impacts of an attack on the Diablo Canyon reactor during the license renewal term.

Petition at 22.

2. Arguments Regarding Contention EC-4

SLOMFP asserts that "a discussion of mitigative measures is required by NEPA and by NRC regulations that require the discussion of severe accident mitigation alternatives (SAMAs) in license renewal decisions." Petition at 23 (citing 10 C.F.R. § 51.53(c)(3)(ii)(L)). SLOMFP asserts that, as a result of the Court of Appeals for the Ninth Circuit's decision in *San Luis Obispo Mothers for*

[70] We reject the proposition that the valuable agricultural land in the vicinity of DCNPP changes this equation or creates a unique situation that supports a *prima facie* case for waiver. Many other nuclear power plants are located in proximity to more urban areas with much greater populations at risk.

Peace v. NRC, 449 F.3d 1016, 1030 (9th Cir. 2006) (*SLOMFP*), the NRC has conceded that it must address the environmental impacts of a terrorist attack on nuclear facilities located in the Ninth Circuit. Petition at 22 (citing 2009 Draft Revised GEIS at E-6 to 8). SLOMFP observes that although the ER references the 1996 GEIS for the conclusion that reactor core damage and radiological releases from sabotage would be "no worse than" those resulting from internally initiated events, the discussion in the 1996 GEIS does not address any cost-benefit analysis for measures intended to avoid or mitigate the effects of such an attack, and no such discussion is presented in the ER. *Id.* at 22-23. Therefore, SLOMFP asserts that the ER is deficient because it omits such a discussion. *Id.*

PG&E offers several reasons why it believes Contention EC-4 to be inadmissible.

First, PG&E asserts that the issue of attacks on reactors "has been conclusively addressed" by the NRC in its 1996 GEIS for license renewal. PG&E Answer at 38. PG&E notes that the 1996 GEIS states that "the risk from sabotage is small." *Id.* at 39 (quoting 1996 GEIS at 5-18). In this regard, PG&E observes that the NRC has found that the environmental effects of an aircraft attack would be "no worse than" those caused by an internally initiated severe accident. *Id.* at 39-40.

Following up the foregoing, PG&E argues that Contention EC-4 is in effect a challenge to the NRC's generic findings and is therefore inadmissible absent a waiver, which has not been requested. *Id.* at 40. Explaining its logic, PG&E asserts:

> The NRC has determined from this generic review that the risk of sabotage or other terrorist attack is small and is provided for in the consideration of internal severe accidents:
>
> > The regulatory requirements under 10 CFR part 73 [i.e., "Physical Protection of Plants and Materials"] provide reasonable assurance that the risk from sabotage is small. Although the threat of sabotage events cannot be accurately quantified, the Commission believes that acts of sabotage are not reasonably expected. Nonetheless, if such events were to occur, the Commission would expect that resultant core damage and radiological releases would be no worse than those expected from internally initiated events.
> >
> > Based on the above, the [C]ommission concludes that the risk from sabotage is small and additionally, that the risks f[ro]m other external events[ ] are adequately addressed by a generic consideration of internally initiated severe accidents.

Id. at 39 (quoting 1996 GEIS at 5-18).

Second, PG&E argues that there is a "critical difference" between the present application, which involves the renewal of a nuclear reactor license, and the independent spent fuel storage installation (ISFSI) at issue in the Ninth Circuit's *SLOMFP* decision: "Unlike for the ISFSI, the NRC has in fact already evaluated

the terrorist issue in the [reactor] license renewal GEIS." *Id.* at 38-39. PG&E argues that the Third Circuit's decision in *New Jersey Department of Environmental Protection v. NRC,* 561 F.3d 132 (3d Cir. 2009), is "directly applicable" here. *Id.* at 40. In that case, PG&E states, the petitioner contended that the "supplement to the GEIS for Oyster Creek should have contained, within its SAMA analysis . . . an analysis of mitigation alternatives for core melt sequences likely to result from an aircraft attack." *Id.* at 39. The *Oyster Creek* Board ruled, based on clear Commission precedent, that terrorist attacks are outside of the scope of NEPA.[71] The Commission affirmed. *Oyster Creek,* CLI-07-8, 65 NRC 124 (2007). The Third Circuit affirmed the Commission, rejecting the Ninth Circuit's holding that NRC cannot categorically exclude terrorist attacks from NEPA, *SLOMFP,* 561 F.3d at 136-43, and adding that "[e]ven if NEPA required an assessment of the environmental effects of a hypothetical terrorist attack on a nuclear facility, the NRC has already made this assessment," citing the 1996 GEIS and a site-specific supplemental EIS. *N.J. Dep't of Envtl. Prot.,* 561 F.3d at 143-44. PG&E asserts that this portion of the Third Circuit's decision should govern here and that we, too, should find that the 1996 GEIS adequately addresses terrorist attacks. PG&E Answer at 40.

Finally, PG&E asserts that SLOMFP has not provided any information to "call into question the costs or benefits of mitigation measures" or explain "how or why an aircraft attack on Diablo Canyon would produce impacts that are different from severe accidents." *Id.* at 40-41. Thus, according to PG&E, SLOMFP has not met its burden to demonstrate that additional analysis would allow the NRC to "evaluate risks more meaningfully than it has already done." *Id.* at 41.

The NRC Staff similarly argues that PG&E's "ER contains SAMA analyses for internally initiated events" and that, since the 1996 GEIS states that the "core damage and radiological releases from [sabotage] would be no worse than the damage and release to be expected from internally initiated events," the ER SAMA is satisfactory. Staff Answer at 45-46. The Staff agrees with PG&E that in the Oyster Creek proceeding the Third Circuit upheld the rejection of a similar terrorist attack contention on the ground that the 1996 GEIS already addressed sabotage and the petitioner therein had "never explained how or why an aircraft attack on Oyster Creek would produce impacts that are different from severe accidents."[72] Like PG&E, the Staff notes that the Ninth Circuit's *SLOMFP* decision is "limited by the facts before it," i.e., NRC's categorical refusal to include terrorist attacks under NEPA, and did not address the adequacy of the

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[71] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-7, 63 NRC 188, 199-201 (2006).

[72] *Id.* at 46-47 (citing *Oyster Creek,* CLI-07-8, 65 NRC at 128-32; *N.J. Dep't of Envtl. Prot.,* 561 F.3d at 144).

1996 GEIS analysis. *Id.* at 47. The Staff urges that this Board should therefore follow the Third Circuit's decision. *Id.*

Finally, the Staff notes that the Commission "is unwilling to throw open its hearing doors to Petitioners who have done little in the way of research or analysis, provide no expert opinion, and rest merely on unsupported conclusions," *id.* at 48 (quoting *McGuire/Catawba,* CLI-02-17, 56 NRC at 12), and places SLOMFP in this category. The Staff states: "As SLOMFP has not demonstrated how consideration of terrorist attacks would change the SAMA analyses or the environmental consequences of severe accidents, EC-4 is not admissible." *Id.* at 48. For the foregoing reasons, the Staff asserts that Contention EC-4 is inadmissible because it lacks an adequate factual basis. *Id.* at 45.

In its reply, SLOMFP repeats its observation that mitigative measures are specific both as to the types of severe accident and as to the types of attacks to which a particular reactor design and site are vulnerable. Reply at 16. For support, SLOMFP points to the ER, where PG&E analyzes twenty-five severe accident mitigation alternatives "each of which is specifically tailored to an internal event. For each SAMA, the table gives a detailed description of how it works to mitigate the effects of the event. Thus, the SAMA analysis takes into account the characteristics of the specific internal events." *Id.* Accordingly, SLOMFP argues, to say that the damage that might be caused by a terrorist attack is bounded by the damage that might be caused by internal events "does not tell anything about how the attack occurs or how it is most effectively mitigated." *Id.* at 16-17. Finally, SLOMFP rejects the assertion that a waiver under 10 C.F.R. § 2.335(b) is needed for Contention EC-4, stating that the 1996 GEIS does not address SAMAs to mitigate the impacts of attacks. *Id.* at 17 n.16; *see also* Tr. at 316.

During the oral argument, SLOMFP and PG&E agreed that they understood EC-4 to be a SAMA contention, Tr. at 316-17, 342, and counsel for SLOMFP clarified that the nature of EC-4 is that "[h]ere, it's an entire field that's been neglected, just not addressed at all." Tr. at 326.

3. Analysis and Ruling Regarding Contention EC-4

To begin with, we see Contention EC-4 as a contention of omission — asserting that the Applicant's SAMA analysis fails to consider terrorist-attack-originated core-damaging events, in contravention of Ninth Circuit law, which requires the NRC to consider terrorist attacks when fulfilling its NEPA obligations.[73] Under the

[73] We note that the Ninth Circuit's *SLOMFP* decision, though it concerned an ISFSI, does not limit itself to ISFSI proceedings. *Contra* Staff Answer at 47 (describing *SLOMFP* decision as "limited *(Continued)*

Commission's regulations implementing NEPA, for license renewal applications, an applicant must provide a SAMA analysis for a plant for which such analysis has not been previously performed. 10 C.F.R. § 51.53(c)(3)(ii)(L).

Although the obligations under NEPA fall to the agency (and therefore the NRC Staff), petitioners are required to raise environmental objections based on the ER, 10 C.F.R. § 2.309(f)(2), and therefore the assertion that there is relevant required SAMA information missing from the ER is appropriate at this point.

As to the contention admissibility criteria of our regulations, the principal criterion governing contentions of omission is found in 10 C.F.R. § 2.309(f)(1)(vi), which requires that a contention asserting that "the application fails to contain information on a relevant matter as required by law" be supported by the petitioner through "identification of each failure and the supporting reasons for the petitioner's belief." We find that this criterion is satisfied in this instance. Petitioner has identified the absence of consideration of terrorist-originated core-damaging events from the Applicant's SAMA analysis, and supported that assertion with reference to the relevant law, *i.e., SLOMFP* and 10 C.F.R. § 51.53(c)(3)(ii)(L).

In addition, for such a contention to be admissible, as we discussed, *supra* Section III, it must satisfy the other criteria of 10 C.F.R. § 2.309(f)(1). Here SLOMFP has plainly stated the issue of law and fact raised (the omission from the ER of cost-benefit analysis regarding mitigation alternatives for terrorist attacks), thereby satisfying the requirements of 10 C.F.R. § 2.309(f)(1)(i). It has established that this information is missing (which is not disputed by Applicant or Staff) and asserted that it is required under NEPA and 10 C.F.R. § 51.53(c)(3)(ii)(L), thereby providing the required brief explanation of the basis for the contention and satisfying the requirements of 10 C.F.R. § 2.309(f)(1)(ii). And given that consideration of terrorist attacks is part of the NRC's NEPA obligations in the Ninth Circuit, the issue of whether terrorist attacks have been fully considered in the NEPA analysis for DCNPP is plainly material to the decision the NRC must make as it fulfills those obligations, thereby satisfying the requirements of 10 C.F.R. § 2.309(f)(1)(iv).

Additionally, because this is a contention of omission, and because Petitioner has supported its assertions by identification of relevant law, no further facts or

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by the facts before [the court]"). The Ninth Circuit held generally that NRC could not categorically refuse to consider terrorist attacks under NEPA. 449 F.3d at 1028. Thus, we understand PG&E's and the Staff's challenges to the admissibility of this contention, PG&E Answer at 38-39; Staff Answer at 47, not as assertions that NEPA does not require an analysis of terrorist attacks in a license renewal proceeding, but as assertions that the 1996 GEIS already adequately considers terrorist attacks for the purpose of NEPA without the need for their incorporation into a SAMA analysis. As we discuss, we find that SLOMFP has raised an admissible contention asserting that NEPA does, in the Ninth Circuit, require consideration of terrorist attacks in the SAMA analysis for a license renewal.

expert opinion are necessary for EC-4 to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(v).

In this regard, we distinguish the Commission's *McGuire/Catawba* ruling. In *McGuire/Catawba,* the Commission found a contention to be inadequately supported when it alleged the omission of a specific alternative from an applicant's SAMA analysis but lacked supporting information regarding the relative costs and benefits of that proposed alternative. *See* CLI-02-17, 56 NRC at 11-12. Moreover, the Commission noted that the applicant's ER did address SAMAs related to the severe accident sequence at issue in the contention. *Id.* at 12. Here, by contrast, SLOMFP has alleged that "it's an entire field that's been neglected, just not addressed at all." Tr. at 326. The Commission's concern in *McGuire/Catawba* that, "[f]or any severe accident concern, there are likely to be numerous conceivable SAMAs and thus it will always be possible to come up with some type of mitigation alternative that has not been addressed by the Licensee," CLI-02-17, 56 NRC at 11, therefore is inapplicable to the present situation because SLOMFP asserts the omission of an entire class of scenarios.

SLOMFP's assertion that terrorist-act-originated SAMA analysis is required by Ninth Circuit law also satisfies the requirements of 10 C.F.R. § 2.309(f)(1)(iii) that the issue be within the scope of this proceeding. We are not persuaded by the arguments of the Staff and Applicant to the effect that this issue has been generically addressed in the 1996 GEIS through a finding therein that the consequences of terrorist-act-initiated incidents would be no worse than those already considered in the ER and the GEIS resulting from other initiators. While it seems plausible to us that consequences of terrorist-act-originated core-damaging events may well be no worse than those for severe accidents traditionally considered in SAMA analysis (because there are events considered in SAMA analysis which assume release from the containment into the environment of a substantial portion of the core fission product inventory), that fact has no bearing upon the potential cost-benefit analysis of various mechanisms to prevent such a release by a terrorist attack, and possibly none upon mechanisms which might ameliorate its consequences.[74] The referenced findings of the 1996 GEIS (insofar as they address terrorist-act initiators) regard only the consequences aspects of a SAMA analysis, and address neither the impact of additional initiating events (terrorist attacks) upon the Core Damage Frequency, nor the cost-benefit analyses

[74] Section 51.71(d) of 10 C.F.R. requires the NRC Staff to consider "alternatives for reducing or avoiding" the potential adverse environmental effects of the events to be considered. Thus a fair reading of this regulation incorporates not only ameliorative alternatives, but preventive alternatives as well.

regarding mitigative (preventive as well as palliative) alternatives.[75] Thus we do not find this contention to challenge a generic finding of the NRC.

Nor are we persuaded that the present contention and situation should be bound by the rulings in the Oyster Creek proceeding. Those rulings simply do not address the present inquiry regarding whether there is indeed information omitted from the application which is required by binding law within the Ninth Circuit. Thus we find Contention EC-4 to have fully satisfied the requirements of 10 C.F.R. § 2.309(f)(1).

Finally, we turn to some more general aspects of matters raised by EC-4.

a. SAMA analyses concern only severe accidents, i.e., those which cause such severe damage to the reactor core that all or part of the core fission product inventory might be released to the environment. Thus terrorist acts which do not cause that level of damage are not within the scope of SAMA analysis. Further, Petitioners agree that the scope of their Contention EC-4 does not extend to such events. *See* Tr. at 315-17 (defining "accident" in the context of EC-4 as a "catastrophic release of radioactive material" and clarifying that EC-4 is a SAMA contention).

b. The NRC already addresses a spectrum of terrorist acts under its Design Basis Threat (DBT) programs, which have been found acceptable in the Ninth Circuit. *See Public Citizen v. NRC,* 573 F.3d 916 (9th Cir. 2009). While we expect that those programs address a wide spectrum of terrorist acts, we have no information (and the pleadings present none) regarding the extent to which such programs identify and address core-damaging events or reasonable preventive mechanisms for such events as would be required to be examined under NEPA (and therefore to be considered in SAMA analyses).[76] But it would not be possible to conduct a cost-benefit analysis of preventive and/or mitigative mechanisms as part of a SAMA analysis without the identification and knowledge of their costs of implementation. Moreover, we expect that much of the relevant information regarding terrorist-act preventive and/or mitigative measures is national-security-related, and, while it may already be in the Staff's possession, those analysts who have considered such information might

[75] Thus we find that the requirement of 10 C.F.R. § 51.71(d) that the draft supplemental environmental impact statement for license renewal rely upon the supporting information in the GEIS for Category 1 issues to have no bearing upon admissibility of EC-4 because the GEIS does not address the matters raised here.

[76] Further, events considered under the DBT programs of the NRC are considered within the context of the NRC's obligations regarding safety, not its NEPA obligations. Thus, even if the DBT programs examine terrorist acts and mitigative mechanisms, the cost-benefit analyses required under NEPA may well not have been performed.

not be (and, in our view, are unlikely to be) the same analysts who would perform the SAMA analyses for an individual license renewal. We expect the same is true for each individual licensee as to particular mechanisms applicable to it.

c. Historical data regarding terrorist acts is, at best, sparse; data regarding terrorist acts against industrial facilities more so; and against nuclear power plants in the U.S., even more so. Thus, as was plainly implied in the GEIS,[77] the generation of the probability distribution of a spectrum of terrorist acts which could cause the degree of core damage necessary to cause the release of core fission products to the environment would be difficult to base upon actual data. Therefore we would expect that any assessment of such events would of necessity rely upon both expert opinion and qualitative analysis.[78]

d. Nonetheless, even if the computed increases to the spectrum of CDFs are so miniscule as to have no measurable effect upon the benefit associated with severe accident mitigation mechanisms, prevention and mitigation of terrorist attacks which could cause core damage and offsite releases might suggest additional potential SAMAs. The aspects of SAMA analysis regarding the cost-effectiveness of reasonable alternatives must still be addressed.

While we find Contention EC-4 to accurately assert an omission of analyses required by law, and thereby to be admissible, we expect that there are significant aspects of a SAMA analysis that would consider terrorist-act-originated core-damaging events which have been already addressed in the context of Design Basis Threat analysis, and believe that there are many aspects of EC-4 that might similarly be better resolved generically (at least for those plants within the Ninth Circuit for which *SLOMFP* applies). Additionally, in our view, the likelihood that terrorist attacks would be analyzed qualitatively, combined with the fact that SAMA analysis, which balances costs and benefits of alternatives, is inherently

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[77] As the Applicant has called to our attention, the 1996 GEIS stated that "the threat of sabotage events cannot be accurately quantified." PG&E Answer at 39; *see also* 1996 GEIS at 5-18 ("With regard to sabotage, quantitative estimates of risk from sabotage are not made in external event analyses because such estimates are beyond the current state of the art for performing risk assessments.").

[78] *See* 10 C.F.R. § 51.71(d) ("To the extent that there are important qualitative considerations or factors that cannot be quantified, these considerations or factors will be discussed in qualitative terms"); *cf. also SLOMFP,* 449 F.3d at 1031 ("It is therefore possible to conduct a low probability-high consequence analysis without quantifying the precise probability of risk." (citing Proposed Commission Policy Statement on Severe Accidents and Related Views on Nuclear Reactor Regulation, 48 Fed. Reg. 16,014, 16,020 (Apr. 13, 1983)).

quantitative, creates some uncertainty as to what exactly the NRC Staff must do to satisfy NEPA in this instance under Ninth Circuit case law.

Because of the matters just discussed, EC-4 raises the questions of: (a) whether because of the quantitative nature of the cost-benefit analyses which are the end product of SAMA analyses, a quantitative, as opposed to qualitative, analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary; (b) how Staff should approach such an analysis when the data are, at best, sparse; and (c) the extent to which, and manner by which, SAMA analyses should consider matters and mechanisms already addressed by the NRC's Design Basis Threat programs. In our view, these are novel legal or policy issues that would benefit from Commission review. *See* 10 C.F.R. § 2.323(f)(1).

For the foregoing reasons, we find Contention EC-4 admissible, but hereby refer this portion of our decision to the Commission in accordance with 10 C.F.R. § 2.323(f)(1).

E. Contention TC-1

1. Statement of Contention TC-1

Proposed Contention TC-1, entitled "Failure to demonstrate adequacy of program for management of aging equipment," states:

> The applicant, Pacific Gas & Electric Company (PG&E), has failed to satisfy 10 C.F.R. § 54.29's requirement to demonstrate a reasonable assurance that it can and will "manage[e] [sic] the effects of aging" on equipment that is subject to the license renewal rule, i.e., safety equipment without moving parts. In particular, PG&E has failed to show how it will address and rectify an ongoing pattern of management failures with respect to the operation and maintenance of safety equipment.

Petition at 2.

2. Arguments Regarding Contention TC-1

SLOMFP begins its argument on TC-1 by focusing on 10 C.F.R. § 54.29(a), the legal criterion that must be met before the Commission can grant a renewal application. According to SLOMFP, the regulation requires that PG&E "demonstrate a reasonable assurance that it can and will 'manage the effects of aging'" during the period of extended operation. Petition at 2. Contention TC-1 claims that PG&E has not demonstrated that it will adequately manage aging because it has an "ongoing pattern of management failures with respect to the operation and maintenance of safety equipment," *id.,* and "does not discuss how it will avoid

repeating [such] chronic and significant errors" when it turns to managing the aging of safety equipment. *Id.* at 3.

SLOMFP provides copies of three recent NRC inspection reports of DCNPP as examples of the alleged "ongoing pattern" of management problems.[79] First, SLOMFP states that the NRC integrated inspection report (IIR) dated February 6, 2008 (IIR 08-05), concludes that the NRC found that PG&E had an "adverse trend in problem evaluation" which "began during the fourth quarter 2007 and continued through the fourth quarter 2008." Petition at 3-4 (quoting IIR 08-05 at 24). According to SLOMFP, the report documents eleven separate examples of this adverse trend. *Id.* at 4. Second, SLOMFP cites IIR 09-03, dated August 5, 2009, for the proposition that the NRC found that the "adverse trend" in problem evaluation "continued during the first two quarters of 2009." *Id.* (quoting IIR 09-03 at 21). SLOMFP also quotes the NRC inspection report as stating that the NRC "analyzed this trend and identified a *common theme related to poor licensee management of the plant design/licensing bases* and inconsistent implementation of regulatory administrative processes." *Id.* (emphasis added). SLOMFP states that the inspectors "identified thirteen separate examples of instances of '*poor licensing and design basis management.*'"[80] *Id.* (emphasis added). SLOMFP then cites IIR 09-05, dated February 3, 2010, as concluding that the adverse trends found in the two prior inspections "continued through 2009." *Id.* at 5 (quoting IIR 09-05 at 35).

SLOMFP also notes that PG&E's license renewal application for DCNPP indicates that the same personnel currently managing its safety equipment will be responsible for managing the aging of safety equipment during the renewal period. *Id.* at 3. As a result, SLOMFP asserts, the inspection reports "raise a genuine and material dispute regarding PG&E's ability to manage the effects of aging into the renewal period" such that "[t]he public has no reason for confidence that a renewed Diablo Canyon licensee would reasonably ensure protection of public health and safety." *Id.* at 5.

PG&E asserts that Contention TC-1 is inadmissible because (a) it does not raise a genuine dispute with the application, and (b) it raises current operational

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[79] Petition at 3-5 (citing Letter from Vince G. Gaddy, Chief, Project Branch B, Division of Reactor Projects, NRC Region IV, to John T. Conway, Senior Vice President and Chief Nuclear Officer, PG&E (Feb. 6, 2009), Enclosure (IIR 08-05); Letter from Vince G. Gaddy, Chief, Project Branch B, Division of Reactor Projects, NRC Region IV, to John T. Conway, Senior Vice President and Chief Nuclear Officer, PG&E (Aug. 5, 2009), Enclosure (IIR 09-03); Letter from Geoffrey B. Miller, Chief, Project Branch B, Division of Reactor Projects, NRC Region IV, to John T. Conway, Senior Vice President — Energy Supply and Chief Nuclear Officer, PG&E (Feb. 3, 2010), Enclosure (IIR 09-05)).

[80] We emphasize these portions of the Petition because, as discussed below, the Majority only admits the portions of TC-1 dealing with PG&E's recognition, understanding, and management of DCNPP's design/licensing basis. *See infra* pp. 341-42.

issues that are outside the scope of a license renewal proceeding. PG&E Answer at 9.

First, PG&E argues that TC-1 fails to raise a "genuine dispute" (as required by 10 C.F.R. § 2.309(f)(1)(vi)) with the application because SLOMFP "does not even cite the application" and has "not identified any alleged deficiencies in PG&E's aging management plans." *Id.* PG&E asserts that TC-1 did not "link the trend [cited in the inspection reports] to aging-related mechanisms, programs, or analyses." *Id.* at 10.

Second, PG&E's "scope" argument asserts that TC-1 raises "discrete performance and compliance matters that are applicable to current operations rather than to operations during the renewal term" and therefore TC-1 is not within the scope of the proceeding as required by 10 C.F.R. § 2.309(f)(1)(iii). *Id.* PG&E argues that the Commission "has confined Part 54 to those issues uniquely relevant to the public health and safety during the period of extended operations."[81] PG&E quotes the Commission as saying "license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to the Commission's ongoing oversight activity." *Id.* at 11 (quoting 56 Fed. Reg. at 64,952). PG&E argues that the violations identified in NRC's recent inspections relate to current operations, "will necessarily be addressed now" (rather than in the period of extended operations (PEO)), and "have no nexus to this proceeding." *Id.* at 12. PG&E argues that "failures to perform adequate evaluations under 10 C.F.R. 50.59" and "failure to recognize a condition outside of the plant design basis" implicate the CLB but are outside the scope of the license renewal review. *Id.* at 10. Likewise, PG&E says that TC-1 is really a challenge to PG&E's corrective action and quality assurance (QA) program which, it asserts, is outside of the scope of license renewal.[82] PG&E cites the Commission as stating "the portion of the CLB that *can* be impacted by the detrimental effects of *aging* is limited to the *design-bases* aspects of the CLB." *Id.* at 12 n.5 (quoting 60 Fed. Reg. at 22,475) (emphasis added).

Finally, PG&E adds that SLOMFP has not provided any factual or expert support showing that PG&E will be unable to reverse the adverse trend identified in the inspection reports or manage the effects of aging during the renewal term. *Id.* at 13. PG&E states, "[u]nsupported speculation that PG&E will contravene the NRC rules at some point in the future is not an adequate basis for a contention."[83]

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[81] *PG&E Answer* at 10-11 (citing the *Board* decision in *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 152 (2001); Nuclear Power Plant License Renewal; Revisions, 60 Fed. Reg. 22,461, 22,463 (May 8, 1995)).

[82] *Id.* at 12 (citing *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 253 (2006)).

[83] *Id.* at 13 (citing *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000) (*Oyster Creek*)).

The NRC Staff, like PG&E, asserts that TC-1 is not admissible because it raises issues that are outside the scope of a license renewal proceeding. *See* Staff Answer at 15. The Staff notes that TC-1 does not contend that PG&E's aging management programs (AMPs) "if implemented, are inadequate," but rather challenges whether PG&E has demonstrated the *ability to adequately implement* its AMPs. *Id.* The Staff states that "the Commission has recognized that the regulations governing license renewal only require an applicant to demonstrate that, *if implemented,* an AMP will adequately manage aging effects on passive systems, structures and components." *Id.* at 16 (emphasis added). The Staff states that this approach "comports with the Commission's general policy of not assuming that licensees will violate NRC regulations." *Id.* (citing *Oyster Creek,* CLI-00-6, 51 NRC at 207).

The Staff points out that the NRC has issued NUREG-1801, the Generic Aging Lessons Learned (GALL) Report[84] dealing with license renewal under Part 54, and the Commission has said that an applicant may demonstrate reasonable assurance of adequate aging management by using AMPs that follow the GALL Report recommendations.[85] The Staff interprets this endorsement as proving that, in license renewal review, the Board is prohibited from considering whether the applicant actually has the managerial competence and/or ability to adequately implement the AMPs (e.g., that the Commission "does *not* contemplate a review to determine *whether the applicant will comply*" with its AMPs). *Id.* at 17 (emphasis added).

Additionally, the Staff argues that admission of TC-1 would result in a "duplicative inquiry" that the Commission's license renewal rules were structured to avoid. *See id.* at 17, 19. "[A] speculative review in this proceeding of whether the Applicant will comply with the terms of its AMP in light of its prior compliance history would be precisely the type of duplicative inquiry the Commission sought to avoid." *Id.* at 18-19. The fact that a plant "might not operate in perfect compliance" does not support the admission of a contention. *Id.* at 19 (citations omitted). The Staff notes that the Commission has limited the license renewal review to "whether actions have been identified and have been or will be taken to address age-related degradation unique to license renewal." *Id.* at 18 (citations omitted). The Staff further argues that the limited scope of the license renewal review is "based on the assumption that the NRC's ongoing regulatory activities are sufficient to ensure licensee compliance with the plant's current licensing basis during the initial period of operation and the extended period of operation." *Id.* The Staff believes that, because the renewed license will

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[84] Division of Regulatory Improvement Programs, Office of Nuclear Reactor Regulation, Generic Aging Lessons Learned (GALL) Report, NUREG-1801, Vol. 1 (Rev. 1 Sept. 2005) (GALL Report).

[85] Staff Answer at 16-17 (quoting *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 468 (2008)).

incorporate the AMPs, "the extent to which a plant complies with the elements of its AMPs" will be "subject to the NRC's continuing oversight activities" during the PEO and therefore cannot be considered under 10 C.F.R. § 54.29(a). *Id.* at 18-19.

The Staff next raises a "floodgates" argument. It says that if TC-1 were admissible, "then any operating issue" could support a contention under 10 C.F.R. § 54.29 and that "this licensing proceeding would effectively become a wide ranging inquiry into PG&E's conformance with its licensing basis." *Id.* at 20. Admission of TC-1 "could result in an endless stream of contentions." *Id.*

The Staff further asserts that if it is true that PG&E has not demonstrated that there is reasonable assurance that it is capable of adequately managing aging *during the PEO,* then, necessarily, there is no reasonable assurance that PG&E is capable of adequately managing safety *during the present. Id.* at 21. If this is so, then PG&E must either rectify the IIR violations immediately or else shut down. *Id.* Given that the Staff has *not* ordered immediate rectification or shutdown of DCNPP due to the recent violations, this, the Staff reasons, must mean that the Staff has affirmatively found that there *is* "reasonable assurance." *Id.* Thus, says the Staff, TC-1 is an impermissible "challenge to NRC's finding." *Id.*

The Staff also argues that TC-1 does not meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi) because it lacks sufficient information to demonstrate a genuine dispute on a material issue of law or fact. *Id.* at 22. The Staff states that "the quantity and magnitude of these inspections findings [from the three IIRs cited by SLOMFP] . . . are not the type of violations that can cause the NRC to be unable to find reasonable assurance." *Id.* According to the Staff, only violations that would require the immediate shutdown of DCNPP would meet this criterion. *Id.* at 22-23. The Staff reminds us that "perfect compliance" is not required and characterizes the violations alleged in the IIRs as "routine," "minor," and "green." *Id.* at 23-24. "Only instances of non-compliance that are of sufficient magnitude and pervasiveness could support an NRC finding of no reasonable assurance that an Applicant will comply with the terms of its CLB during the period of extended operation. Such instances have not been identified here." *Id.* at 23. Thus, the Staff asserts that SLOMFP has not provided sufficient information to demonstrate a genuine dispute. *Id.* at 25.

Finally, the Staff notes that "in the past, the Commission has considered contentions similar to TC-1," stating that "[s]uch contentions have focused on management integrity" and "involved allegations far more serious than those at issue here." *Id.* at 25 n.20. The Staff cites two "management integrity" decisions by the Commission.[86] In that same footnote, the Staff acknowledges that an ASLB

[86] *Georgia Tech,* CLI-95-12, 42 NRC 111; *Georgia Power Co.* (Vogtle Electric Generating Plant, *(Continued)*

recently admitted a contention similar to TC-1[87] but notes that the Board decision is not binding and is under appeal. Staff Answer at 25 n.20.

In its reply, SLOMFP reiterates that the "license renewal application relies for the management of aging equipment on precisely the same organization that has had tremendous difficulty managing safety during the current license term." Reply at 2. The current "trend of management failures" is the link to PG&E's ability to manage aging in the future. *Id.* "PG&E's aging management program necessarily includes the organization that will carry it out." *Id.* at 3. "PG&E's ongoing problems in managing its current program presage problems with its aging management program, given that the very same people in the very same organization that now manages Diablo Canyon's safety equipment will be responsible in the future for PG&E's program for managing aging equipment during the license renewal term." *Id.* SLOMFP asserts that this raises a "reasonable inference" that PG&E will not adequately manage aging in the future. *Id.* at 4. SLOMFP asserts that "TC-1 presents a pattern of chronic and repetitive management problems which consistently recur" and thus "effectively rebutted the presumption that licensees will comply with NRC aging management regulations during the license renewal term." *Id.* at 4 & n.1 (referring to the Staff's citation of *Oyster Creek,* CLI-00-6, 51 NRC at 207). SLOMFP also argues that the Staff's interpretation of 10 C.F.R. § 54.29 "would render meaningless" the language of the rule requiring an applicant to show "the adequacy of an applicant's measures to manage aging equipment." *Id.* at 4. Finally, SLOMFP asserts that the Staff's argument regarding the magnitude of PG&E's documented violations goes to the merits of the contention and not to its admissibility. *Id.* at 5 n.2.

The oral argument on Contention TC-1 clarified and sharpened some of the issues. Counsel for SLOMFP noted that both 10 C.F.R. §§ 54.21 and 54.29 use the word "manage" and asserted that the way the Staff and PG&E read the regulations, the word "manage" "doesn't mean anything" because "if you

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Units 1 and 2), CLI-93-16, 38 NRC 25 (1993). Strangely, both decisions *affirmed* that past management practices were *admissible* in determining whether an applicant would implement and comply with regulatory requirements or license conditions in the future, and both affirmed the admission of such contentions. Indeed, one of these cases involved a reactor license renewal. In it the Commission stated clearly,

> [i]n determining whether . . . to renew a license[ ], the Commission makes what is in effect predictive findings about the qualifications of an applicant. The *past performance of management may help indicate* whether a licensee will comply with agency standards. . . . Of course, the *past performance must bear on the licensing action [renewal] currently under review*.

Georgia Tech, CLI-95-12, 42 NRC at 120 (emphasis added).

[87] *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), Licensing Board Order (Narrowing and Admitting PIIC's Safety Culture Contention) (Jan, 28, 2010) (unpublished) (*Prairie Island*).

have a program, then that's all you need" and "no party can raise a question about whether . . . the Applicant can actually manage" the program. Tr. at 48-49. SLOMFP acknowledged that it is not challenging any specific element of PG&E's AMP, Tr. at 55, 122, but is instead concerned about how PG&E implements the program. Tr. at 55. SLOMFP also declined to challenge the behavior of specific individuals in PG&E's management. *Id.* Likewise, SLOMFP declined to characterize PG&E's management as "bad actors" and denied that TC-1 focuses solely on PG&E's "commitment." *See id.* When pressed, SLOMFP argued,

> The word is "manage." . . . there are several ingredients that go into whether you do a good job of managing something, and one would be you've got the right instructions, you've got a good set of instructions, and one would be you've got an organization that can carry it out . . . . I just don't want to cut the contention short, because the contention focuses on the word "manage."

Tr. at 121. "I would say that [PG&E's and the Staff's] position would leave the word 'management' out of the regulation." Tr. at 127.

By contrast, PG&E asserted that the only thing that the NRC can consider when it determines whether the Applicant has demonstrated that it will adequately manage aging during the PEO is the adequacy of the Applicant's paper program. Tr. at 66. "The future implementation of the aging management programs . . . it's not part of the licensing review." Tr. at 83. PG&E took the position that whether or not the company has demonstrated that it will actually manage aging during the PEO or adequately implement the AMP is simply "outside the scope" of 10 C.F.R. § 54.29. Tr. at 66. In support, PG&E cited 10 C.F.R. § 54.30, which provides that the licensee's compliance with its CLB during the current licensing term is not within the scope of the license renewal review. Tr. at 67-68. PG&E noted the "second principle of license renewal, that the reactor oversight processes and the other regulatory processes address" current compliance. Tr. at 70.

PG&E denied that its current violations and adverse trend (as shown by NRC's three recent inspection reports) undermine PG&E's assertion that TC-1 is based on "[u]nsupported speculation that PG&E will contravene the NRC rules at some point in the future." Tr. at 71. "[I]t's unsupported because you're making a leap into the future and assuming that it [the violations] will continue to exist through the current operating license term as well as into the future, into the extended operating license term." Tr. at 72. PG&E took the position that "the past is . . . never an indicator of future results," Tr. at 73, and that allegations of a pattern of serious noncompliance or a history of current violations are outside of the scope of license renewal review. Tr. at 83-84.

Ultimately, PG&E acknowledged that there is an *overlap* between design/licensing basis issues under the current license and under a renewal license, but

said that since they are not "unique" to the PEO, these issues are not within the scope of license renewal.

> I think all of these programs undercut everything at the plant and relate to everything, including license renewal, so I've never said that there's no overlap. But what I have said is that implementation of those program is not a license renewal licensing issue. The trend related to design and licensing basis. . . . it's not an issue that's *unique* to license renewal. It's not an issue *unique* to age-related degradation.

Tr. at 88 (emphasis added).

During the oral argument, the NRC Staff agreed that the only thing it looks at when reviewing the adequacy of PG&E's AMP is the paperwork. Tr. at 97. The Staff said that PG&E's "aging management program is adequate if it adequately describes how the Applicant will manage the effects of aging during the period of extended operations." *Id.* According to the Staff, whether or not the applicant will actually be able to manage or implement the AMP is irrelevant. Tr. at 98, 111. Even if the licensee is having problems understanding its current licensing basis and implementing decisions associated with the design basis of the plant, none of this is within the scope of license renewal. Tr. at 116.

In the alternative, the Staff argued that, even if past performance is relevant to license renewal review, the type and quantity of violations alleged in TC-1 are insufficient to form a basis for an NRC finding that PG&E has not demonstrated reasonable assurance, as required by 10 C.F.R. § 54.29(a). Tr. at 102-03.

3. Analysis and Ruling Regarding Contention TC-1

The admissibility of Contention TC-1 hinges, in the first instance, on whether NRC is prohibited from considering a licensee's current ongoing pattern of difficulties in managing its design basis programs and activities when NRC decides whether to allow that licensee to operate its nuclear power plant for an additional 20 years into the future. If so, then TC-1 is inadmissible.

The key license renewal regulation states that NRC must decide whether the applicant has demonstrated that actions "will be taken," with respect to "managing the effects of aging during the period of extended operation," such that there is "reasonable assurance" that activities that would be authorized by the renewed license will "continue to be conducted in accordance with the CLB [current licensing basis]." 10 C.F.R. § 54.29(a). Thus, the question we must answer is whether NRC is barred from considering a past and continuing performance problem relating to a poor understanding and operational implementation of the CLB when it assesses and predicts a licensee's future performance under 10 C.F.R. § 54.29(a). Contention TC-1 alleges an "ongoing pattern" of managerial difficulties and says that this is relevant under section 54.29(a). PG&E and the

NRC Staff reject this position and say the section 54.29(a) decision must be based solely on the adequacy of the applicant's written plan describing how it will comply, i.e., its aging management program (AMP). They assert that the fact that an applicant might be experiencing a current and ongoing pattern of problems, violations, or other difficulties, regardless of how severe, cannot be considered under 10 C.F.R. § 54.29. They conclude that TC-1 is not within the scope of this proceeding and thus fails the test of 10 C.F.R. § 2.309(f)(1)(iii).

Resolution of this issue requires a careful reading of the relevant regulations and cases. But one legal point warrants clarification at the outset, to wit: "[a]djudicatory hearings in individual license renewal proceedings will share the same scope of issues as our NRC Staff review." *Turkey Point,* CLI-01-17, 54 NRC at 10. Stated conversely: If the ability of an applicant to actually manage and/or to adequately implement an AMP cannot be raised in a contention because it is outside of the scope of 10 C.F.R. § 54.29(a), then likewise, it cannot be considered by the NRC Staff when it decides whether to allow a company to operate a nuclear power reactor for an additional 20 years.

For the reasons set forth below, it is clear to this Board that, under narrowly limited circumstances, the 10 C.F.R. § 54.29(a) determination *can* be informed by the applicant's past performance if it is an ongoing pattern of difficulty in managing activities and compliance that have a direct link to the applicant's ability to implement the AMP in accordance with the CLB.

The key regulation, titled "Standards for issuance of a renewed license," states, in pertinent part, as follows:

> A renewed license may be issued . . . if the Commission finds that:
>
> (a) *Actions* have been identified and have been or *will be taken* with respect to the matters identified in paragraphs (a)(1) . . . of this section, such that there is *reasonable assurance* that the *activities* authorized by the renewed license *will continue* to be conducted in *accordance with the CLB*. . . . These matters are:
>
> (1) *managing* the effects of aging during the period of extended operation on the functionality of structures and components that have been identified to require review under § 54.21(a)(1).

10 C.F.R. § 54.29(a) (emphasis added).

This regulation is closely related to 10 C.F.R. § 54.21(a)(3), which requires a license renewal applicant to "demonstrate that the effects of aging will be adequately managed so that the intended function(s) will be maintained *consistent with the CLB* for the period of extended operation."

The elements of 10 C.F.R. § 54.29(a) seem relatively straightforward. Before it authorizes an existing nuclear power plant to operate for an additional 20 years, the NRC must make: (1) a finding (2) that actions (3) have been identified, (4) and have been or will be taken (5) to manage (6) the effects of aging during the

PEO (7) on the functionality of specified structures and components, (8) such that there is reasonable assurance (9) that the activities authorized by the renewed license (10) will continue to be conducted (11) in accordance with the CLB.

As an initial matter, the plain language of the regulation states that the Commission must conclude that there is reasonable assurance that the required aging management activities have already "been taken" or "*will be taken*" [Element 4]. The wording of the regulation makes clear that the "*identification*" of the needed actions [Element 3], such as in an AMP, *is not enough.* There must be assurance that the actions will *actually* be taken [Element 4]. Further, the Commission must conclude that these actions "*will continue to be conducted*" [Element 10]. And the current licensing basis, or CLB, must be complied with in the PEO as well as now [Element 11]. These are *predictive* findings about what the NRC thinks the applicant will *actually do* in the future.

Nothing in 10 C.F.R. § 54.29(a) says that a licensee's current noncompliance history or patterns of management problems or difficulties cannot be considered. Nor does the regulation say that the only thing the NRC can consider in making the 10 C.F.R. § 54.29(a) determination is the adequacy of the paperwork, i.e., the AMP that states the applicant's plan for satisfying the regulation. Neither 10 C.F.R. § 54.29 nor any of the Part 54 regulations ever use the terms "aging management program," "aging management plan," or "AMP." The regulation does not say — submit an adequate AMP. The regulation says that the applicant must demonstrate that the "effects of aging will be adequately managed." 10 C.F.R. § 54.21(a)(3). The regulation says that the NRC must determine, to a reasonable assurance, that such a demonstration has been made. 10 C.F.R. § 54.29(a).

It is clear to the Majority that, under narrow and specific circumstances, the NRC can and should consider a licensee's past performance when deciding whether to allow that licensee to operate a nuclear reactor for another 20 years. The Commission dealt with this very question in 1995. The Commission *rejected* the applicant's "broad claim that a license *renewal* proceeding is *per se an inappropriate* forum" to consider the adequacy of the applicant's managerial performance, and stated:

> In determining whether . . . to renew a license[ ], the Commission makes what is in effect predictive findings about the qualifications of an applicant. The *past performance of management may help indicate* whether a licensee will comply with agency standards. . . . Of course, the *past performance must bear on the licensing action [renewal] currently under review.*

Georgia Tech, CLI-95-12, 42 NRC at 120 (emphasis added, footnotes omitted).[88]

It is not credible to argue, in the face of three current and consecutive NRC inspections finding numerous violations and a continuing "adverse trend" in such violations, that it is "*unsupported speculation*" that "PG&E *will contravene the NRC rules* in the future." NRC itself has said that PG&E is "contravening the NRC rules" *now.* To argue that "the past is never an indicator of future results," Tr. at 73, runs contrary to all experience when assessing or predicting future human or managerial performance, as well as to the Commission's reasoning in *Georgia Tech.* When determining whether a person, or corporation, will manage the effects of aging in the future or whether "actions will be taken," it is relevant to assess how they have managed similar activities in the past. The reasoning in *Georgia Tech* is unassailable.[89]

The Staff is correct in reminding us of the Commission's "general policy of not assuming that licensees will violate NRC regulations." Staff Answer at 16 (citing *Oyster Creek,* CLI-00-6, 51 NRC at 207). But the assumption of compliance is only an assumption, and is rebuttable. Past performance, such as NRC inspection reports of current and continuing patterns of violations, can undermine and rebut that assumption. Likewise, data on past performance difficulties can undermine and/or rebut any presumption that a renewal applicant will actually be able to manage or implement an AMP in the future. We reject the notion that the presumption of compliance is irrebutable or that, despite evidence to the contrary, the NRC must blindly assume that an applicant will always comply and/or will always be able to adequately implement future programs under any and all circumstances. This is especially so if there is a narrow and specific concern that has existed for years and continues to exist regarding the ability of a license renewal applicant to properly understand the very same CLB that it must comply with during the PEO.

We acknowledge that perfect compliance is not required. As the Staff has stated, "the Commission foresaw that plants might not operate in 'perfect compliance with all NRC requirements' when it promulgated the license renewal

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[88] Similarly, the *Prairie Island* licensing board admitted an aging management contention based on current noncompliances. *See Prairie Island* at 2-3, 11-14. Although that contention specifically challenged the applicant's safety culture, the decision further supports the relevance of current and continuing noncompliance to a license renewal applicant's ability to manage aging in the future.

[89] Equally unconvincing is PG&E's argument that violations documented in 2008 and 2009 cannot be used to predict how PG&E will manage aging in 2024 and 2025, when the current operating licenses for DCNPP Units 1 and 2 expire. First, under 10 C.F.R. § 54.31, if a license is renewed, then the renewed license goes into effect immediately (and would not wait until 2024 or 2025). Second, it was PG&E's decision to apply for license renewal so far in advance of the DCNPP operating license expiration dates. PG&E cannot use its own early-application strategy as the vehicle to force the Board to ignore PG&E's (alleged) current and ongoing pattern of problems.

rule." Staff Answer at 19 (quoting *Turkey Point,* CLI-01-17, 54 NRC at 10). Trivial and random noncompliances that have no link to the essential elements of implementing an AMP will not support the admission of a contention alleging that the applicant has failed to demonstrate a reasonable assurance that it *will in fact* (as opposed to on paper) adequately manage aging of passive safety equipment in the PEO. But even the Staff acknowledges (arguing in the alternative) that "instances of non-compliance that are of sufficient magnitude and pervasiveness could support an NRC finding of no reasonable assurance" under 10 C.F.R. § 54.29(a). Staff Answer at 22. But such a finding — of no reasonable assurance — is for the merits, whereas here, we are only concerned with whether TC-1 is within the scope of this license renewal proceeding and admissible. The absence of "perfect compliance" does not rebut the presumption of compliance or support admission of a contention. But a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment, will.

We also reject the Staff's dire warnings that admission of TC-1 will open the litigation floodgates, allowing "*any* [current] operating issue" to support a "*wide ranging* inquiry into PG&E's conformance with its licensing basis" and resulting in an "*endless stream* of contentions." *Id.* at 20. Certainly, the Commission has said:

> [L]icense renewal should not include a new, *broad scoped* inquiry into compliance that is separate from and parallel to the Commission's ongoing compliance oversight activity. Noncompliances are *generally independent* of (in a [causal] sense) the renewal decision. However, allegations that the *implementation* of a licensee's proposed actions to address age-related degradation unique to license renewal has or *will cause* noncompliance with the plant's current licensing basis during the period of extended operation . . . *would be valid subjects for contention[JP1].*"

56 Fed. Reg. at 64,952 (emphasis added and footnote omitted).

But where the noncompliances are indicative of an adverse trend and are linked to (rather than independent of) the renewal, are *persistent and nontrivial,* and are associated with a contention that is *not "broad scoped"* but instead focused on a narrow and specific aging issue, then we believe that this "would be [a] valid subject for contention" and the Staff's warnings are misplaced. Thus, we hold that a narrow and specific contention that alleges facts, with supporting documentation, of a longstanding and continuing pattern of noncompliance or management difficulties, that are reasonably linked to whether the licensee will actually be able to adequately "manage aging" in accordance with the current licensing basis during the PEO, can be an admissible contention under 10 C.F.R. § 54.29(a).

We likewise reject the proposition that the admission of a contention under 10 C.F.R. § 54.29 is permissible only if the current violations are so drastic and

severe that the NRC would have to order the immediate shutdown of the nuclear reactor. Staff Answer at 21-23. SLOMFP is not alleging that there is a lack of reasonable assurance that PG&E can comply with its current license. Maybe it can, and maybe it cannot. But that is not the point of TC-1. Current compliance with the CLB or license, or the shutdown of DCNPP is not the issue. SLOMFP is arguing that PG&E has not yet shown that there is reasonable assurance that it actually *will* adequately manage aging in accordance with the CLB in the future, during the PEO. Second, the existence of reasonable assurance, or not, is a merits decision. It would be premature to adjudicate the merits of TC-1 at the contention admissibility stage.

Next, we reject the Dissent's proposition that TC-1 is a "character" or "bad actor" contention and must be viewed as an attack on PG&E's management's "improprieties," "integrity" or "commitment." We recognize that the Atomic Energy Act requires that each application "shall specifically state such information as the Commission . . . may determine to be necessary to decide . . . the character of the applicant." AEA § 182, 42 U.S.C. § 2232. The line of cases under AEA § 182 (often dealing with license transfers or initial applications) establish a relatively high threshold for the admission of contentions alleging that the applicant, or its management, lack integrity or are guilty of improprieties such that the license being sought should not be granted.[90] Indeed, *Georgia Tech* is such a case. CLI-95-12, 42 NRC at 120 ("As part of its licensing and oversight responsibilities, the Commission may consider the adequacy of a licensee's corporate organization and the integrity of its management." (citing *Vogtle,* CLI-93-16, 38 NRC at 30, a case under AEA § 182)).[91]

But TC-1 is based on 10 C.F.R. § 54.29(a). It is not a "character" or "bad actor" contention.[92] Unlike *Georgia Tech,* it is not based on AEA § 182, which was never cited in any of the pleadings. SLOMFP never alleges that PG&E's

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[90] *See, e.g., Vogtle,* CLI-93-16, 38 NRC at 32; *Millstone,* CLI-01-24, 54 NRC at 365-67.

[91] Even in a "bad actor" case such as *Georgia Tech,* the Commission affirmed the admission of the "management contention" because the petitioner "seeks assurance that the facility's current management encouraged a safety-conscious attitude," *id.* at 121, based on a *single* "cadmium-115 contamination incident" that had occurred in 1987, *id.* at 118-19, *seven years before* the license renewal application was filed. Further, we disagree with the Dissent that *Georgia Tech* establishes a "bright line" test (even in the bad actor cases under AEA § 182 to which it applies). The decisions under the bad actor doctrine are generally quite fact specific.

[92] The Dissent asserts that we have ignored and replaced the standards established in *Georgia Tech* and have instead created a new threshold test. We disagree. The test we are applying is 10 C.F.R. § 54.29. This is the law in this reactor license renewal proceeding, which was never cited or applied in *Georgia Tech* (because, *inter alia,* it was a research reactor case). *Georgia Tech* never even mentioned 10 C.F.R. § 54.29. Thus, instead of creating a new and different standard, we are relying on the language of 10 C.F.R. § 54.29 and 10 C.F.R. § 54.30. *Georgia Tech* is a bad actor case under AEA § 182, whereas Contention TC-1 cites and is founded on 10 C.F.R. § 54.29.

management lacks the character or integrity necessary to be relicensed, or that it or its management is not committed to implementing the AMP. None of the parties, in any of the briefs, even mentions the "character" or "bad actor" theory.[93] Instead, SLOMFP alleges that PG&E has experienced an "ongoing pattern of management failures" associated with the design and licensing basis for its safety equipment, that these "chronic and significant" problems will affect its duty to manage aging, and thus that PG&E has not demonstrated reasonable assurance that it will adequately manage aging in accordance with this design/licensing basis during the PEO as required by 10 C.F.R. § 54.29(a). TC-1 does not focus on the character or integrity of the plant management. Especially as narrowed by the Majority, TC-1 focuses on whether PG&E has carried its burden of proving that it can and will be able to adequately implement the AMP in accordance with the CLB during the PEO, as is required under 10 C.F.R. § 54.29(a), because it alleges that PG&E has had, and continues to have, a poor understanding of this same CLB.

Turning to another key point, it is clear, as PG&E and the Staff assert, that 10 C.F.R. § 54.29 must be read in conjunction with 10 C.F.R. § 54.30. Section 54.29 sets the *criteria that must be met* before NRC will allow a company to operate a nuclear power plant for an additional 20 years. The Commission must find that actions will be taken, with respect to managing the effects of aging during the PEO, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the CLB. 10 C.F.R. § 54.29(a).

Meanwhile, 10 C.F.R. § 54.30 sets forth "*matters not subject to a renewal review.*" 10 C.F.R. § 54.30 has two subparts. Subpart (a) states that if the license renewal reviews:

> [s]how that there is not reasonable assurance during the current licensing term that licensed activities will be conducted in accordance with the CLB, *then the licensee shall take measures . . . to ensure [that compliance is maintained] throughout the term of its current license.*"

10 C.F.R. § 54.30(a) (emphasis added). Subpart (b) of this regulation states: "[t]he licensee's compliance with the *obligation under Paragraph (a) of this section*

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[93] Although the parties did not brief, or otherwise identify the "bad actor" doctrine to be particularly relevant to 10 C.F.R § 54.29, it was raised by Judge Abramson during the oral argument. *See, e.g.,* Tr. at 55, 77, 79. In that context, counsel for SLOMFP, apparently surprised by this new issue, stated, "if the Board thinks that the bad actor doctrine could be applied here to deny the contention, we'd just like a chance to brief the question." Tr. at 128. No one else requested such briefing. Given that the Majority of the Board does NOT think that the bad actor doctrine applies here, the request by SLOMFP is moot and we see no reason to require additional briefing or to delay our ruling on the admissibility of this contention.

to take measures under its current license is not within the scope of the license renewal review." 10 C.F.R. § 54.30(b) (emphasis added).

In short, 10 C.F.R. § 54.30(a) says that the licensee is obliged to correct current noncompliances now, and section 54.30(b) says that whether or not the licensee complies with its obligation to correct current noncompliances now is not within the scope of license renewal review. That is all.

Nothing in 10 C.F.R. § 54.30 bars TC-1 as narrowed. This contention focuses on future compliance, i.e., whether PG&E has demonstrated, as required by 10 C.F.R. § 54.29(a), that it can and will adequately manage aging in accordance with the CLB during the PEO. SLOMFP cites an ongoing pattern of noncompliance with the current CLB as *evidence in support* of its assertion that PG&E has not shown reasonable assurance that it will adequately manage aging in accordance with the CLB during the PEO. Past performance is cited as a relevant indicator of future performance, but it is not the focus of TC-1. Instead, TC-1, especially as narrowed by this Board, is focused squarely on PG&E's *future performance during the PEO,* not current conduct. And TC-1 is certainly not focused on whether or not PG&E restores current compliance. Thus, TC-1 does not run afoul of 10 C.F.R. § 54.30(b), which simply states that "[t]he licensee's *compliance with the obligation,* under [10 C.F.R. § 54.30(a)] to *take measures* under its *current license is not within the scope* of the license renewal review" (emphasis added).

This interpretation conforms to the "first principle of license renewal." *See* PG&E Answer at 11.

> The first principle of license renewal was that, with the *exception* of **age-related degradation unique to license renewal** and *possibly a few other issues related to safety only during the period of extended operation* of nuclear power plants, the regulatory process is adequate to ensure that the licensing bases of all currently operating plants provides and maintains an acceptable level of safety so that operation will not be inimical to public health and safety or common defense and security.

60 Fed. Reg. at 22,464 (emphasis added).

Basically, the current regulatory process, and compliance with the CLB, is not the primary focus of license renewal. We note, however, that there are exceptions. For example, the Commission states: "the portion of the CLB that *can* be impacted by the detrimental effects of *aging* is limited to the *design bases aspects* of the CLB." *Id.* at 22,475.

We note further that the phrase "age-related degradation unique to license renewal," or "ARDUTLR," was *deleted* from the regulation in 1995. *Id.* at 22,464. ARDUTLR was removed because it was difficult to identify aging issues that were *unique* to the PEO. The uniqueness concept

> caused significant uncertainty and difficulty in implementing the [license renewal] rule. A key problem involved how "unique" aging issues were to be identified and, in particular, how existing licensee activities and Commission regulatory activities would be considered in the identification of systems, structures, and components as either subject to or not subject to ARDUTLR. The difficulty in clearly establishing "uniqueness" in connection with the effects of aging is underscored by the fact that aging is a continuing process, the fact that many licensee programs and regulatory activities are already focused on mitigating the effects of aging to ensure safety in the current operating term of the plant, and the fact that no new aging phenomena have been identified as potentially occurring only during the period of extended operation.

Id. In short, although the license renewal review focuses on management of aging, aging is a continuous process and the aging in question does not need to be "unique" to the PEO to be relevant to 10 C.F.R. § 54.29(a).

Even NRC's GALL report, NUREG-1801, which provides guidance on how the NRC Staff will evaluate license renewal applications, implicitly rejects the proposition that past performance is outside of the scope of 10 C.F.R. § 54.29 when evaluating whether a renewal applicant has demonstrated that it will adequately manage aging in the future. The GALL Report specifies that each AMP should include ten elements, including action-oriented elements such as corrective actions and confirmation processes. The tenth element — "operating experience" — confirms the fundamental proposition that past performance is relevant to predictions of future performance. The GALL Report states:

> *Operating experience* involving the aging management program, including *past corrective actions* resulting in program enhancements or additional programs, should *provide objective evidence to support a determination* that the effects of aging *will be adequately managed* so that the structure and component intended functions will be maintained during the period of extended operation.

GALL Report at 3 (emphasis added). Thus, the GALL Report recognizes that *past actions and performance provide "objective evidence" as to future performance* and can be used in the 10 C.F.R. § 54.29 determination. We agree.

Having concluded that, under narrow and specific circumstances that have a link to the applicant's ability to implement the AMP and/or to manage aging in accordance with the CLB during the PEO, the 10 C.F.R. § 54.29(a) determination *can* be informed by the applicant's past performance, e.g., by an ongoing pattern of difficulty or violations in managing activities and compliance that have a link to the applicant's ability to implement the AMP and/or to manage aging during the PEO, we now must decide whether TC-1, as narrowed by this Board, fits within this limited scope. We conclude that it does and that, properly limited, TC-1 is within the scope of license renewal review.

First, it is clear that TC-1 focuses on the future, i.e., whether PG&E "can and will 'manage the effects of aging' on . . . safety equipment without moving parts." Petition at 2. The focus is on aging of "plant systems, structures, and components" enumerated in 10 C.F.R. § 54.4. And, while SLOMFP cites three recent NRC inspection reports in support of TC-1, current compliance is not the gist of TC-1. The alleged current violations, and NRC's findings that PG&E has a continuing adverse trend in violations, are referenced only as indicating "an ongoing pattern of management failures," Petition at 2, that provides "objective evidence" (in the words of the GALL Report at page 3) that PG&E may not, in fact, adequately manage aging in the future in accordance with this same licensing basis, as required by 10 C.F.R. § 54.29(a).

PG&E and the Staff assert that an ongoing pattern of management failures and/or past or current violations, however severe, cannot be the subject of an admissible contention and are outside of the scope of 10 C.F.R. § 54.29(a). This goes too far. For if this were so, *then the NRC Staff also would be barred* from considering *any* evidence of past performance or nonperformance in deciding whether to allow a licensee to operate a nuclear power plant for an additional 20 years. This is because the scope of the Staff's review and the scope of adjudicatory review are the same. *Turkey Point,* CLI-01-17, 54 NRC at 10. We cannot agree that NRC's license renewal review is forbidden under all circumstances from considering past performance when evaluating whether the applicant will actually be able to manage aging in the future. That is not what 10 C.F.R. § 54.29(a) says. That is not what section 54.30(a) says. We do not believe that NRC's license renewal review is limited to evaluating whether a piece of paper, i.e., the AMP, conforms to another piece of paper, i.e., the GALL Report. Compliance with 10 C.F.R. § 54.29(a) is not achieved simply via a Xerox machine. It is more than just a paperwork determination.

Here, where the Petitioner cites highly credible "objective evidence" (i.e., findings by NRC itself that DCNPP has a continuing adverse trend) of an ongoing pattern of difficulties involving the plant design/licensing basis, the presumption articulated in *Oyster Creek,* CLI-00-6, 51 NRC at 207 — that the applicant will be able to comply in the future — is sufficiently rebutted to allow, at least, the admission of a contention. Whether or not these alleged problems mean that PG&E is unable to satisfy the requirements of 10 C.F.R. § 54.29 is a merits determination for a later stage of this proceeding.

As we see it, the key link between the alleged "ongoing pattern of management failures" and the ability, or not, of PG&E to manage age-related degradation of relevant systems, structures, and components, relates to "poor licensee management of plant design/licensing basis." IIR 09-03 at 21. NRC's findings that PG&E has violated 10 C.F.R. § 50.59 illustrate, according to the report, "the failure of the licensee to recognize a condition outside of the plant design basis." *Id.* at 22. Likewise, the failure of PG&E to maintain adequate capacity of the emergency

diesel generators illustrates the "failure of the licensee to understand and apply the plant design and licensing basis." *Id.* The NRC IIR findings of PG&E's (alleged) failure to understand its licensing/design basis are cited by SLOMFP, Petition at 4-5, and are part of its allegation that there is an "ongoing failure of PG&E to properly identify, evaluate and resolve problems and manage safety equipment." *Id.* at 3. These problems fit precisely within the Commission's statement that "allegations that the implementation of a licensee's proposed actions to address age-related degradation unique to license renewal has or will cause noncompliance with the plant's current *licensing basis* during the period of extended operation . . . *would be valid subjects for contention.*" 56 Fed. Reg. at 64,952 n.1 (emphasis added).

The Majority believes that this specific alleged failure of PG&E to properly understand its design/licensing basis and its inability to correct this problem over several years would be a serious factor in determining whether there is reasonable assurance that it will adequately manage aging in accordance with this licensing basis in the future, and that this is the admissible core of TC-1. Thus, we will narrow TC-1 as follows:

> The applicant, Pacific Gas & Electric Company (PG&E), has failed to satisfy 10 C.F.R. § 54.29's requirement to demonstrate a reasonable assurance that it can and will "manage the effects of aging" in accordance with the current licensing basis. PG&E has failed to show how it will address and rectify an ongoing adverse trend with respect to recognition, understanding, and management of the Diablo Canyon Nuclear Power Plant's design/licensing basis which undermines PG&E's ability to demonstrate that it will adequately manage aging in accordance with this same licensing basis as required by 10 C.F.R. § 54.29.

As so narrowed, and as concretely supported by recent NRC inspection reports, TC-1 will not open the floodgates to "an endless stream of contentions." NRC Answer at 20. As so narrowed, we conclude that TC-1 is within the scope of license renewal review and, accordingly, satisfies 10 C.F.R. § 2.309(f)(1)(iii).[94]

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[94] We disagree with the Dissent that we are recasting TC-1 *outside* of its original scope. TC-1, as originally submitted, was *broader,* alleging a general "ongoing pattern of management failures with respect to the operation and maintenance of safety equipment." Petition at 2. TC-1, as we have reformulated it, focuses on a *narrower* (but we believe crucially important) subset of such "management failures," to wit: "an ongoing adverse trend with respect to recognition, understanding and management of Diablo Canyon Nuclear Power Plant's design/licensing basis." SLOMFP cited to a broad array of issues and findings of violations identified in NRC's three recent inspection reports. But we have not admitted such a broad contention. However, in the five pages devoted to TC-1, SLOMFP quoted the IIR's findings that PG&E's poor management of its plant design/licensing basis three times. Petition at 4, 5. Focusing TC-1 on poor management of its design/licensing basis is narrower than, but still within the ambit of, the original TC-1.

Before closing on TC-1, we turn to the only other significant argument presented against its admission. Both PG&E and the NRC Staff assert that TC-1 "lacks sufficient information to demonstrate a genuine dispute on a material issue of law or fact" as is required by 10 C.F.R. § 2.309(f)(1)(vi). PG&E Answer at 9-10, NRC Answer at 22. "Given the quantity and magnitude of these inspection findings, they are not the type of violations that can cause the NRC to be unable to find reasonable assurance." NRC Answer at 22. For reasons stated above and the narrowed contention, we disagree. The specific NRC inspection finding that PG&E has a poor understanding of its design/licensing basis, the longstanding (and continuing) duration of this problem, and the NRC conclusion that "the licensee's causal analysis was narrowly focused on the NRC rather than addressing the broader issue of organizational barriers to effective problem evaluation," IIR 09-05 at 35, provide sufficient information for the admission of this narrowed contention under 10 C.F.R. § 2.309(f)(1)(vi).

VI. SELECTION OF HEARING PROCEDURES

A. Legal Standards

As required by 10 C.F.R. § 2.310, upon admission of a contention, the Board must identify the specific hearing procedures to be used. NRC regulations provide for a number of different hearing procedures, two of which are relevant here.[95] First, Subpart G of 10 C.F.R. Part 2, which is mandated for certain proceedings, *see, e.g.,* 10 C.F.R. § 2.310(d), establishes NRC "Rules for Formal Adjudications," where parties are permitted to "propound interrogatories, take depositions, and cross-examine witnesses without leave of the Board."[96] Second, Subpart L of 10 C.F.R. Part 2 provides for more "informal" proceedings where discovery is prohibited (except for (1) specified mandatory disclosures under 10 C.F.R. § 2.336(f), (a), and (b); and (2) the mandatory production of the hearing file under 10 C.F.R. § 2.1203(a)). 10 C.F.R. § 2.1203(d). Under Subpart L, the Board has the principal responsibility to question the witnesses. 10 C.F.R. § 2.1207(b)(6).

The standard for allowing the parties to conduct cross-examination is the same under Subparts G and L, to wit — the Administrative Procedure Act (APA) standard for cross-examination in formal administrative proceedings as set forth in 5 U.S.C. § 556(d) ("A party is entitled . . . to conduct such cross examination

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[95] If the hearing on a contention is "expected to take no more than two (2) days to complete," 10 C.F.R. § 2.310(h)(1), the Board can impose the Subpart N procedures for "Expedited Proceedings with Oral Hearings" specified in 10 C.F.R. §§ 2.1400-2.1407. These procedures are highly truncated, but may prove appropriate for certain contentions at a later stage.

[96] *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 201-02 (2006).

as may be required for a full and true disclosure of the facts."). *See Citizens Awareness Network, Inc. v. NRC,* 391 F.3d 338, 351 (1st Cir. 2004); *see also* 69 Fed. Reg. at 2195-96. This is a liberal standard, but even under APA § 556(d) there is no absolute right to cross-examination. *Seacoast Anti-Pollution League v. Costle,* 572 F.2d 872, 880 (1st Cir. 1978). And even though the APA § 556(d) *substantive standard* is the same under Subparts G and L, NRC's *procedures* differ. Cross-examination occurs virtually automatically in Subpart G hearings, subject to normal judicial management and the requirement to file a cross-examination plan. *See* 10 C.F.R. §§ 2.319, 2.711(c). In contrast, under Subpart L, a party seeking to conduct cross-examination must file a written motion and obtain leave of the Board. 10 C.F.R. § 2.1204(b).

The Board determines which hearing procedure to use on a contention-by-contention basis.[97] The key regulation enumerates specific situations where a certain procedure is mandated or available, 10 C.F.R. § 2.310(b)-(h), and states that if a contention does not fall within one of those categories, "proceedings . . . *may* be conducted under the procedures of Subpart L of this part." 10 C.F.R. § 2.310(a) (emphasis added). Thus, if no particular procedure is compelled, the Board must exercise its discretion and select the hearing procedure most appropriate for the newly admitted contentions.[98] A general discussion of this issue is found in *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-31, 60 NRC 686, 704-06 (2004).

Under 10 C.F.R. § 2.309(g), if a petitioner relies upon 10 C.F.R. § 2.310(d) in requesting a Subpart G proceeding, then the petitioner must demonstrate, by reference to the contention, that its resolution "necessitates resolution of material issues of fact which may best be determined through the use of the identified procedures." *See also id.* § 2.310(d) (Subpart G will be used where resolution of a contention "necessitates resolution of material issues of 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 the motive or intent of the party or eyewitness material to the resolution of the contested matter.").

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[97] *See, e.g.,* 10 C.F.R. §§ 2.309(g) and 2.310(d) (Subpart G used if the "resolution of the contention" meets specified criteria); *Vermont Yankee,* LBP-06-20, 64 NRC at 202.

[98] While the first section in each subpart addresses the "Scope" of the subpart, these are not consistent with 10 C.F.R. § 2.310, and are mutually contradictory. For example 10 C.F.R. § 2.1200, "Scope of subpart L," and 10 C.F.R. § 2.1400. "Purpose and scope of subpart N," both state that "The provisions of this subpart . . . govern *all adjudicatory proceedings*" with an identical list of exceptions. This is not what section 2.310 states, and is simply not possible (e.g., Subpart L and Subpart N cannot simultaneously govern license renewal proceedings for materials licensees).

B. Ruling

None of the parties has addressed the issue as to which hearing procedures should apply to the contentions. In these circumstances, the Board concludes that, for the time being, the Subpart L hearing procedures will be used to adjudicate each of the admitted contentions. We reach this result as follows. First, we find that there has been no showing under 10 C.F.R. § 2.310(d) that the Subpart G procedures are *mandated* for any of the admitted contentions. Second, exercising our discretion under 10 C.F.R. § 2.310(a), we have seen no reason or need to apply the Subpart G procedures to any of the admitted contentions. Cross-examination is equally available under Subparts L and G. We therefore rule that, for the time being, the procedures of Subpart L will be used for the adjudication of each of the admitted contentions.[99]

VII. CONCLUSION AND ORDER

For the reasons set forth above, the Board rules as follows:

A. Petitioner San Luis Obispo Mothers for Peace (SLOMFP) has standing as required by 10 C.F.R. § 2.309(a) and (d);

B. Petitioner has propounded at least one admissible contention as required by 10 C.F.R. § 2.309(f)(1)(i)-(vi);

C. Therefore, the request for hearing and petition to intervene by SLOMFP is *granted*;

D. Contention EC-1, as narrowed and restated in Appendix A, is *admitted*;

E. SLOMFP has made a *prima facie* showing, pursuant to 10 C.F.R. § 2.335(b), supporting the waiver request relating to Contention EC-2;

F. Contention EC-2, as narrowed and restated in Appendix A, is *admitted,* subject to the Commission ruling on the merits of the SLOMFP request for waiver;

G. Contention EC-4, as narrowed and restated in Appendix A, is *admitted*

[99] The selection of hearing procedures for contentions at the outset of a proceeding is not immutable because, *inter alia,* the availability of Subpart G procedures under 10 C.F.R. § 2.310(d) depends critically on whether the credibility of eyewitnesses is important in resolving a contention, and witnesses relevant to each contention are not identified, under 10 C.F.R. § 2.336(a)(1), until *after* contentions are admitted. *See Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 272 (2007); *see also* 10 C.F.R. § 2.1402(b).

and is *referred* to the Commission pursuant to 10 C.F.R. § 2.323(f)(1); and

H. SLOMFP has failed to make a *prima facie* showing, pursuant to 10 C.F.R. § 2.335(b), supporting the waiver request relating to Contention EC-3 and therefore it will not be considered further.

In addition, a majority of the Board concludes that Contention TC-1, as narrowed and restated in Appendix A, is admissible. Therefore it is *admitted.*

Finally, in light of the fact that Contention EC-2 requires a ruling by the Commission with regard to the waiver request, the Board suspends the duty of the parties and the NRC Staff to make mandatory disclosures (pursuant to 10 C.F.R. § 2.336(a) and (b)) and the duty of the Staff to produce the hearing file (pursuant to 10 C.F.R. § 2.1203(a)), concerning EC-2 until thirty (30) days after the Commission rules on the waiver request. Likewise, we suspend the duties to make mandatory disclosures and to produce the hearing file with regard to EC-4 until thirty (30) days after the Commission rules on the referral. The mandatory disclosures and production of hearing file with regard to Contention EC-1 and TC-1 are not suspended and are due thirty (30) days after today's decision. *See* 10 C.F.R. §§ 2.336(a)-(b) and 2.1203(a).[100]

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD[101]

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 4, 2010

[100] The filing of a motion for reconsideration or an interlocutory appeal is not a basis for suspending mandatory disclosures or production of the hearing file.

[101] The separate opinion of Judge Abramson, concurring in part and dissenting in part, is attached.

SEPARATE OPINION BY JUDGE ABRAMSON CONCURRING IN PART AND DISSENTING IN PART

I agree with my colleagues regarding the disposition of Contentions EC-1 through EC-4, but in my view, the Majority's decision regarding TC-1 is based upon a series of fundamental flaws, leading to an erroneous result. TC-1 is inadmissible.

As submitted, Contention TC-1, entitled "Failure to demonstrate adequacy of program for management of aging equipment," is as follows:

> The applicant, Pacific Gas & Electric Company (PG&E), has failed to satisfy 10 C.F.R. § 54.29's requirement to demonstrate a reasonable assurance that it can and will "manage[e] the effects of aging" on equipment that is subject to the license renewal rule, i.e., safety equipment without moving parts. In particular, PG&E has failed to show how it will address and rectify an ongoing pattern of management failures with respect to the operation and maintenance of safety equipment.

Petition at 2.

The Majority recasts TC-1, to find it admissible, as follows:

> The applicant, Pacific Gas & Electric Company (PG&E), has failed to satisfy 10 C.F.R. § 54.29's requirement to demonstrate a reasonable assurance that it can and will "manage the effects of aging" in accordance with the current licensing basis. PG&E has failed to show how it will address and rectify an ongoing adverse trend with respect to *recognition, understanding, and management of the Diablo Canyon Nuclear Power Plant's design/licensing basis* which undermines PG&E's ability to demonstrate that it will adequately manage aging in accordance with this same licensing basis as required by 10 C.F.R. § 54.29.

(Emphasis added.)

For a number of reasons, I disagree with the Majority's treatment of Contention TC-1. To begin with, the Majority recasts TC-1 to address an issue not argued by SLOMFP, and in so doing treads upon fundamental principles regarding the latitude of licensing boards to read missing information into a contention. In addition, I believe the Majority has misinterpreted our regulations and Commission precedent to enable a challenge to management. Finally, the Majority has developed its view of what should be admissible based upon the foregoing errors and an interpretation of the applicable regulation in a vacuum — resulting in both (a) ignoring the principles of the only Commission case addressing the circumstances under which a challenge to management might be found to present sufficient foundation for an admissible contention, as well as the Commission's explicit discussion in the rulemaking proceeding regarding license renewals, and (b) a wholly new criterion for admissibility which vitiates our "strict by design"

principles, instead admitting a contention which does nothing more than provide "notice" of issues it intends to raise and deferring all the relevant threshold matters to hearing on the merits. I address these flaws below.

A. The Majority Impermissibly Recasts TC-1 Well Outside Its Original Scope

My colleagues' first error lies in their recasting of contention TC-1 using information not argued by Petitioner but obtained from the Majority's detailed review of the copies of three recent NRC inspection reports of DCNPP provided by Petitioner as attachments to its pleadings as examples of the asserted "ongoing pattern of management failures." The Majority itself finds in those inspection reports, with no intimation from SLOMFP that it intends to assert it, "a past and continuing performance problem relating to a *poor understanding and operational implementation of the CLB*." Majority Opinion at p. 332 (emphasis added). But Petitioner nowhere mentions any failure to "understand" the CLB, its only expansion on the generalized assertion of the contention itself being the assertion that "PG&E's aging management program is deficient because it does not discuss how it will avoid repeating the chronic and significant errors it is currently committing in the management of safety equipment at DCNPP." Petition at 3.

The Majority characterizes this as "an ongoing pattern of difficulty in managing activities and compliance that have a direct link to the applicant's ability to implement the AMP in accordance with the CLB." Majority Opinion at p. 334. Acknowledging that perfect compliance with the CLB is not required, the Majority asserts that a perfect plan in-and-of itself is insufficient, and that the presumption that an Applicant will indeed properly implement the "perfect plan" can be rebutted (a principle which makes some sense to me, under appropriate circumstances — circumstances which must be, but are not, adequately defined by the Majority and are not present in this case). The Majority holds that "a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment, will" rebut a presumption of compliance and support admission of a contention. Majority Opinion at p. 336. Without addressing the boundaries of its criteria, and based upon its own detailed review of the inspection reports, and for all practical purposes unsupported by the explicit pleadings of SLOMFP, the Majority recasts the contention to become admissible under its newly constructed admissibility criteria.[1]

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[1] The Majority's admissibility criterion is

> that a narrow and specific contention that alleges facts, with supporting documentation, of a longstanding and continuing pattern of noncompliance or management difficulties, that are

(Continued)

But Petitioner never suggests any failure to "recognize or understand" the design basis or CLB (which are, as I see it, the principal reasons for the Majority's finding of admissibility of TC-1),[2] only mentioning the CLB once in its pleadings as it recites the relevant portion of 10 C.F.R. § 54.29[3] and mentioning the design basis generally in a series of references to the inspection reports, beginning with describing one of the inspection reports in which "[t]he inspectors then identified thirteen separate examples of instances of 'poor licensing and design basis management.'" Petition at 4. Petitioner simply never made any assertion resembling the assertions the Majority interprets to be contained in the generalized claim of TC-1.[4] Instead, in my view, the Majority has scoured the inspection reports and seized upon the issues it finds therein to justify recasting TC-1 as an assertion that the Licensee fails to have an adequate recognition and understanding of the CLB and "has failed to show how it will address and rectify an ongoing adverse trend with respect to recognition, understanding, and management of the Diablo Canyon Nuclear Power Plant's design/licensing basis." Majority Opinion at p. 342. While it may well be true that these explicit failures the Majority finds to have been raised by their interpretation of these inspection reports[5] should give rise to concern, they have not been raised by SLOMFP and, further, seem to me

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> reasonably linked to whether the licensee will actually be able to adequately "manage aging" in accordance with the current licensing basis during the PEO, can be an admissible contention under 10 C.F.R. § 54.29(a).

Majority Opinion at p. 336. Going on, the majority finds

> TC-1 . . . as narrowed by the Majority, . . . focuses on whether PG&E has carried its burden of proving that it can and will be able to adequately implement the AMP in accordance with the CLB during the PEO, as is required under 10 C.F.R. § 54.29(a), **because it alleges that PG&E has had, and continues to have, a poor understanding of this same CLB.**

Majority Opinion at p. 338 (emphasis added).

[2] Further, had Petitioner intended to make, or made, such an assertion, it must be more than a bare assertion — it must be supported by reasoning explaining just what elements of the design basis or CLB are not understood or recognized and, probably, by an expert opinion supporting the assertion as was provided in the *Georgia Tech* case discussed below. *See infra* Section C.

[3] "A renewed license may be issued . . . if the Commission finds that (a) actions have been identified and have been or will be taken with respect to the matters identified in paragraphs (a)(1) and (a)(2) of this section, such that there is reasonable assurance that the activities authorized by the renewed license will continue to be conducted in accordance with the CLB."

[4] The closest SLOMFP comes to such an assertion is its "wrap-up" sentence in its discussion of TC-1, stating "PG&E has shown that it cannot adequately identify, evaluate, and resolve maintenance problems involving safety equipment and systems," Petition at 5, a statement addressing, in my view, matters of current, not future, compliance.

[5] That this is the case is apparent from the inquiry by the Majority at the oral argument: "Those inspection reports that you chose — chose them well — but maybe not for the reasons that you originally — that you were thinking. But they bring out a concern that I'd like to get resolved here." Tr. at 58.

to be matters for current enforcement.[6] This recasting goes, in my view, far afield of what is permissible adjudicatory latitude in interpreting generalized assertions, amounting to the Board itself creating an admissible contention where none was asserted. The Board may not make assumptions of fact that favor the petitioner or rewrite the contention using information and arguments that were lacking from the Petition.[7]

B. The Majority Fails to Properly Apply Relevant Precedent

The Majority refers us to two precedents (the Commission's ruling in *Georgia Tech,* CLI-95-12, 42 NRC at 120, and the Commission's final rulemaking for license renewal, 56 Fed. Reg. 64,943 (Dec. 13, 1991), for its view that past performance of this licensee indicating a pattern of similar management failures is sufficient to form the basis of an admissible contention. But neither of those precedents supports the Majority's legal analysis or proposition.

First, the Majority refers us to the Commission's holding in *Georgia Tech,* which appears to be the seminal precedent for establishment of criteria for admissibility of a contention challenging management in a license renewal. But the Majority on one hand uses this case to support their proposition that management is challengeable, and on the other hand disclaims the analysis that

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[6] In this sense, I agree with the Staff and Applicant that matters raised here, absent satisfaction of definitive criteria regarding admissibility of such a contention in a license renewal case, are outside the scope of this proceeding. As the Applicant succinctly put it:

> To the extent that the Petitioners are attempting to rely on the trend identified in the various inspection reports that they cite, they do not link the trend to aging-related mechanisms, programs, or analyses. In fact, the examples cited by Petitioners involve discrete performance or compliance issues — that is, issues that are not within the scope of the limited license renewal review. For example, Petitioners cite several instances of failures to perform adequate evaluations under 10 C.F.R. § 50.59, including an evaluation of containment sump modifications. Pet. at 4. The inspection reports cited by Petitioners also mention PG&E's failure to recognize a condition outside of the plant design basis relating to a potentially explosive mixture of oxygen and hydrogen and a failure to maintain design control for emergency diesel generators. *Id.* at 4-5. But sump modifications and design control failures do not implicate age-related degradation. Instead, such modifications implicate the CLB, which, as discussed above, is outside the scope of the license renewal review. 56 Fed. Reg. at 64946. The NRC's ongoing regulatory processes are adequate to ensure compliance with the CLB during both the current and renewed license terms. . . . License renewal focuses on *aging* issues, not on everyday operating issues.

PG&E Answer at 9-11.

[7] *See, e.g., Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552-53 (2009); *Andrew Siemaszko,* CLI-06-16, 63 NRC 708, 720-21 (2006); *see also Georgia Tech,* LBP-95-6, 41 NRC at 305; *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).

the Commission laid out therein regarding the level of management problems which are sufficient to permit admissibility of such a challenge. The Majority would have us distinguish *Georgia Tech* from the present case because, it asserts, it is a "bad actor" (management integrity) case challenging compliance with AEA requirements.[8] But *Georgia Tech* is not entirely about management integrity — it is also about the corporate management structure, which certainly is an integrity-neutral structural matter regarding which employees have what responsibilities. And even if we are to accept the Majority's argument that *Georgia Tech* should not be binding precedent for the present case, it lucidly sets forth a well-reasoned threshold which the Commission has established for admissibility of a management challenge, and that threshold must not be ignored and replaced, as the Majority has done, with a new threshold sewn from whole cloth without foundation and without establishing definitive criteria which have guided it in finding satisfaction of our "strict by design" criteria for contention admissibility. From my perspective, a licensing board cannot ignore the analysis of, and threshold established by, the Commission in what I perceive as plainly relevant circumstances, whether that case regarded a challenge raised under the AEA or 10 C.F.R. Part 54. The distinction is illusory.

To begin with, the Majority recites a portion of the *Georgia Tech* holding to support its proposition that challenges to whether management will actually implement its AMPs are admissible:

> the Commission stated clearly "In determining whether . . . to renew a license, the Commission makes what is in effect predictive findings about the qualifications of an applicant. The *past performance of management may help indicate* whether a licensee will comply with agency standards. . . . Of course, the *past performance must bear on the licensing action [renewal] currently under review.*

Majority Opinion at 330 n.86 (quoting *Georgia Tech,* CLI-95-12, 42 NRC at 120), and repeated in the body at pp. 334-35.

But the Majority takes that quotation out of context. The Commission qualified the quoted statement in the very next sentence to indicate it had in mind some sort of threshold of "proof" (support) which it would find necessary for admissibility: "If GANE can *prove* that the GTRR's current management either is unfit or structured unacceptably, it would be cause to deny the license renewal or condition renewal upon modifications." *Georgia Tech,* CLI-95-12, 42 NRC at 121 (emphasis

[8] SLOMFP stated at oral argument that it does not question management integrity itself, but questions whether management will actually live up to its commitments to implement the AMPs discussed in its license renewal application. Tr. at 55-56.

added). And, in fact, there is much more to that portion of the Georgia Tech ruling.[9]

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[9] The following is, in my view, the relevant text from *Georgia Tech* describing the two management-related issues (commencing at 42 NRC at 119):

> GANE's central concern appears to be that there is a need to restructure the GTRR's management to make radiation safety personnel "independent" of the director, and to ensure independent oversight over the director's office. GANE believes that the GTRR director withheld safety-related information from the NRC, and was responsible for alleged retaliation against radiation safety personnel who reported the cadmium-115 contamination incident to the NRC in the late 1980s. GANE alleges that management changes after the 1987 incident further "consolidat[ed] the power under the harasser," making it less likely that radiation safety personnel would feel free to report safety concerns. GANE also questions the effectiveness of the Nuclear Safeguards Committee, a committee of twelve safety experts tasked with monitoring the GTRR's operations. Because the GTRR's management is now "being put forth again to be re-okayed," GANE requests that the current structure not be reapproved.
>
> . . . .
>
> At the outset, the Commission rejects Georgia Tech's broad claim that a license renewal proceeding is *per se* an inappropriate forum in which to raise management allegations. **As part of its licensing and oversight responsibilities, the Commission may consider the adequacy of a licensee's corporate organization and the integrity of its management. When relevant, the Commission has evaluated whether a licensee's management displays the "climate," "attitude," and "leadership" expected. In determining whether to grant a license (or, by logical extension, to renew a license),** the Commission makes what is in effect predictive findings about the qualifications of an applicant. The past performance of management may help indicate whether a licensee will comply with agency standards. **When a licensee files a license renewal application, it represents "an appropriate occasion for apprais[ing] . . . the entire past performance of [the] licensee." Of course, the past performance must bear on the licensing action currently under review.**
>
> **Moreover, the NRC Staff conclusion in 1988 that Georgia Tech had corrected all deficiencies and could be permitted to restart operations is not itself enough to preclude GANE from raising questions about the GTRR's management, particularly in the absence of any clear prior opportunity for GANE to pursue claims at a hearing. A Staff conclusion alone does not defeat the right to litigate a contention.** . . .
>
> Allegations of management improprieties or poor "integrity," of course, must be of more than historical interest: they must relate directly to the proposed licensing action. ***Accordingly, this proceeding cannot be a forum to litigate whether Georgia Tech made mistakes in the past, but must focus on whether the GTRR as presently organized and staffed can provide reasonable assurance of candor and willingness to follow NRC regulations.***
>
> ***Here, while the question is a close one, the Commission declines to disturb the Board's finding that GANE's management allegations are relevant to the proposed license renewal.*** This is a proceeding to extend a license for 20 years. GANE seeks assurance that the facility's current management encourages a safety-conscious attitude, and provides an environment in which employees feel they can freely voice safety concerns. GANE's allegations bear directly on the Commission's ability to find reasonable assurance that the GTRR facility can be safely

Continued)

What is more, the Commission then established the requisite extent of support for admissibility of such a contention, finding, in deciding not to disturb the licensing board's admission of a contention, three fundamental factors: (a) that the incidents referred to had been of such severity level that they resulted in two immediately effective suspension orders; (b) that civil penalties were also assessed; and (c) that it was significant that there had been an expert report supporting the petition to intervene.

None of those factors are mentioned by the Majority, and none are present in the circumstances asserted in TC-1. Plainly and objectively viewed, *Georgia Tech* regards a challenge to a license renewal based upon a challenge to two distinct facets of management — one regarding character,[10] and one not regarding character — founded in severe security level violations, suspension orders and civil penalties, and even supported by an expert opinion. Even with this support, the Commission described its decision as a close one, thereby providing clear guidance to a threshold (bright line) regarding the level of management problems during the current operational term which may be sufficient to permit a challenge to management in the PEO. It establishes a line for admissibility much clearer,

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> operated. **If GANE can prove that the GTRR's current management either is unfit or structured unacceptably, it would be cause to deny the license renewal or condition renewal upon modifications.**

CLI-95-12, 42 NRC at 119-21 (emphasis added) (internal citations omitted). And, the holding goes on to state:

> But as required by the Commission's contention rule, GANE at this stage has presented "alleged facts or expert opinion" and made a "minimal showing" that material facts about the GTRR's management organization are in dispute and that further inquiry may be appropriate. GANE refers not just to the 1987 cadmium incident, but also to the NRC inspection and investigation reports on the incident, the GTRR's own SAR in support of its license renewal request, newspaper articles, **and, significantly, to at least one expert witness in support of the contention.**
>
> **Although the cadmium-115 incident that GANE highlights is far from recent, it was a significant Severity Level III violation that resulted in two immediately effective suspension orders, an NRC investigation, an enforcement conference, and a civil penalty, and ultimately was attributed to management failures that "could have resulted in very serious safety consequences." The incident involved allegations of harassment and reprisals by Georgia Tech management against employees who reported safety concerns to the NRC. These allegations led to an extensive NRC Office of Investigations (OI) review that proved inconclusive.** GANE takes the view that the management problems leading to the 1987 incident remain and indeed have been exacerbated by more recent changes in the GTRR management structure.
>
> The 1987 incident is not one in which all of the principal individuals alleged to have played a role have since left the facility or moved to positions unassociated with day-to-day operations.

Id. at 121-22 (emphasis added) (internal citations omitted).

[10] The line of cases regarding this sort of challenge was discussed briefly by the Board with SLOMFP, Tr. at 55-56, and extensively with the Applicant at oral argument, Tr. at 76-81.

and plainly consistent with its principles that contention admissibility criteria are strict by design, than the Majority's view here — that a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment and which are found to be failures to comply with the current licensing basis provides sufficient support for admission of such a contention.

In an effort to avoid being bound by those criteria, the Majority characterizes *Georgia Tech* as an attack upon management character under requirements of the AEA and attempts to distinguish it from the challenges under our own regulations presented by SLOMFP.[11] But even if I were to accept the distinction (which I do not), the difference of the nature of the legal assertion cannot serve to justify the wholesale replacement of the explicit standards established in *Georgia Tech* with an entirely new vague criterion. Further, there is a plain link between the type of assertions sufficient to bring a contention under the AEA and under our regulations: continuity of the offending management — which is a necessary, but not sufficient, condition to success of an assertion of failure to demonstrate management will indeed carry out its plans for aging management, whether made under a claimed failure to comply with the AEA or 10 C.F.R. Part 54. And that fact was recognized by SLOMFP, which explicitly links the past performance of management to the expected performance of management during the PEO by asserting that the current management will be managing aging during the PEO.[12]

The Majority's efforts to ignore the analyses and strict admissibility criteria (amounting to a bright line threshold)[13] established by the Commission in *Georgia Tech* must fail. The Majority offers no other binding precedent regarding a challenge to whether current management will indeed live up to its commitment during the PEO,[14] instead referring us to a recent licensing board ruling (currently

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[11] In this regard, when asked at oral argument about "bad actor" cases and their precedential effect in this instance, the Parties acknowledged that they had not addressed such cases and requested the opportunity to brief the Board if they were to be relevant to our decision. *See* Tr. at 79-80 (counsel for PG&E citing a case "based on my own experience" rather than cited in PG&E's Answer), 128.

[12] "As explained on page B-4, during the license renewal term, PG&E will use the same personnel to manage aging equipment that are described in the Final Safety Analysis Report for DCNPP, *i.e.,* that PG&E currently uses." Petition at 3.

Indeed, SLOMFP's explicit reference to continuity of management is a much more direct and explicit link to this factor than any link found in their pleadings to an assertion that the Applicant fails to comprehend its CLB.

[13] The Commission found that decision a "close call"; i.e., a lesser set of circumstances would likely have resulted in reversal — thus establishing a set of minima amounting to a bright line.

[14] Indeed, although the Majority avers there is some distinction between challenging management's character and challenging its willingness or desire or ability to carry out the commitments undertaken by even a "perfect plan," I fail to see any substantive difference between a challenge to management character and a challenge in effect asserting that management will not live up to its commitment embodied in such a "perfect plan."

being appealed) admitting a similar contention based upon an asserted absence of a current adequate safety culture.[15] For these reasons, I find inappropriate and insufficient the Majority's newly created threshold test, which entirely ignores the much more stringent bright line test of *Georgia Tech.*

Second, and as its only other legal authority for the position it propounds, the Majority finds, buried in a footnote in the nearly forty-page 1991 final rule of the Commission regarding license renewal, 56 Fed. Reg. 64,943, the same principle that it wishes to deploy to support its conclusion. The Majority refers us to the following excerpt of a footnote:

> *However,* allegations that the *implementation* of a licensee's proposed actions to address age-related degradation unique to license renewal has or *will cause* noncompliance with the plant's current licensing basis during the period of extended operation . . . *would be valid subjects for contention.*

Majority Ruling at p. 336 (citing 56 Fed. Reg. at 64,952 n.1).

To begin with, the Majority misinterprets the meaning of this footnote, which merely advises that an assertion that the actual implementation of the letter of an applicant's plan would cause noncompliance with the CLB is a "valid subject for contention" under the appropriate circumstances, a view no one could question. It does not focus upon management at all — it focuses upon the plan — saying the Commission sees a valid contention in a challenge that the plan itself, when implemented, would result in noncompliance with the CLB. And, of equal import, by so editing and parsing this latter quotation from the footnote, the Majority omits the material qualifier in that particular footnote — which is "since the claim essentially *questions the adequacy of the licensee's program* to address age-related degradation unique to license renewal." 56 Fed. Reg. at 64,952 n.1 (emphasis added). Thus, not only does that footnote not support the new test for contention admissibility the Majority creates,[16] but it focuses upon the "program"

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[15] Majority ruling at 330 n.87 (citing *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), Licensing Board Order (Narrowing and Admitting PIIC's Safety Culture Contention) (Jan. 28, 2010) (unpublished)).

[16] In point of fact, the relevant text surrounding the referenced portion of the 1991 *Federal Register* notice is as follows:

> The inspection program, as discussed in NRC Inspection Manual Chapter (IMC) 2500, Reactor Inspection Program, and IMC-2515; Light-Water Reactor Inspection Program–Operations Phase, and as implemented, provides reasonable assurance that conditions adverse to quality and safe operation are identified and corrected and that a formal review of compliance by a plant with its licensing basis is not needed as part of the review of that plant's renewal application. Both the licensees' programs for ensuring safe operation and the Commission's regulatory oversight program have been effective in identifying and correcting plant-specific

(Continued)

and its adequacy, and simply states that there could be circumstances in which allegations that the actual future implementation of the specific actions set out in the program would, in and of themselves, cause noncompliance with the CLB.[17] That footnote, taken in context, simply does not stand for the principle that assertions that the management will not carry out its program would be a basis for an admissible contention.[18] Further, the Majority fails to recognize the underlying

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> noncompliance with the licensing bases. These programs will continue to be implemented throughout the remaining, term of the operating license, as well as the term of any renewed license. In view of the comprehensiveness, effectiveness, and continuing nature of these programs, the Commission concludes that license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to the Commission's, ongoing compliance oversight activity. Noncompliances are generally independent of (in a casual sense) the renewal decision.[FN1] For example, failures to comply with station blackout requirements are not "caused" by the impending expiration of an operating license.
>
> [FN1] However, allegations that the implementation of a licensee's proposed actions to address age-related degradation unique to license renewal has or will cause noncompliance with the plant's current licensing basis during the period of extended operation, or that the failure of the licensee to address age-related degradation unique to license renewal in a particular area has or will cause such noncompliance during the period of extended operation would be valid subjects for contention, *since the claim essentially questions the adequacy of the licensee's program to address age-related degradation unique to license renewal.*

56 Fed. Reg. at 64,952 (emphasis added).

[17] And it seems to me that this is precisely what SLOMFP was asserting. When discussing this in the oral argument, counsel for SLOMFP stated

> Well, I — we weren't contemplating challenging the behavior of individuals because it seems — well, the — we distinguish between the program, which is a written thing, like this is instructions for how you do it, and the execution. Where a company has repeated problems with the execution, perhaps that's a problem with the program. I'm not sure what it is. At this point, we see the pattern. Perhaps it's a problem with the description of the program or some instruction in the program that's overlooked. Perhaps it's a problem with training. Perhaps — I don't know what causes this. It just keeps repeating itself. And that is — that is the question. If it's repeating itself now under these circumstances, will it not repeat itself under more — under the greater duress of the license renewal term?

Tr. at 55-56. She then said, "[i]n terms of the admissibility of the contention, no. We are not challenging any element of the program," Tr. at 122, and finally, requested the opportunity to brief the issue of "bad actor" cases, if the Board finds them relevant, Tr. at 128.

Further, this is not dissimilar to the Staff's view that "I think those situations would be when the challenge focused on the elements of the aging management program and how those elements did not guarantee the safe operation of the plant during the periods of extended operation." Tr. at 113.

[18] The Staff aptly describes, I believe, the proper view of challenges of this sort when it says,

> [t]hus, TC-1 rests on an interpretation of 10 C.F.R. § 54.29(a) that would require an applicant to not only provide an AMP for an in-scope system, structure, or component, but also to prove that the applicant will comply with the terms of the AMP. Petition at 2, 5. . . . [T]his interpretation contravenes Commission precedent, undermines the carefully-structured scope

(Continued)

premise of the Commission's statements (leading up to that footnote) to the effect that the current operational safety is ensured by the current oversight programs (which is the reason this sort of challenge is outside the scope of a license renewal proceeding absent more). Finally, in this regard, even if we accept the quoted statement on its own and out of context, it does not stand for the principle that a licensing board is free to make up its own test for when such a challenge might be admissible; it simply states that such considerations are relevant.

It is plain that neither of the legal authorities upon which the Majority opinion rests can be read, without straining credulity, to permit an admissible contention based singularly upon findings by the NRC Staff inspectors embodied in annual inspection reports presented here that there have been, and remain, ongoing noncompliances with the CLB during the current license term.

The Majority's conclusion that "[t]he absence of 'perfect compliance' does not rebut the presumption of compliance or support admission of a contention. But a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment, will," Majority Ruling at p. 336, fails to establish, despite our "strict by design" criterion for contention admissibility, and ignoring the detailed analysis and explicit language of *Georgia Tech* and the particularly egregious circumstances present there which became the Commission's bright line for admissibility, any reasonably definitive criteria for a determination regarding what sort of "pattern of problems" in what sort of "specific area" are sufficient and what time frame is sufficiently "longstanding" to present an adequate basis upon which a contention should be admitted. Instead, it seems to me, the Majority is "kicking the can down the road" by finding that

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> of license renewal proceedings, and is contrary to the Commission's regulations. . . . The Commission has never found that an applicant for license renewal must prove that it will implement the terms of its AMP's during the period of extended operation. Rather, in describing Part 54 generally, the Commission has stated, "Part 54 requires renewal applicants to demonstrate *how* their programs will be effective in managing the effects of aging during the proposed period of extended operation."

Staff Answer at 15-16 (quoting *Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 733-34 (2006)).

> If 10 C.F.R. § 54.29(a) is to be interpreted as the Majority suggests, we and the parties are left with the task of establishing the level of information/proof required to establish the Majority's reasonable assurances of expected management behavior during the PEO and establishing what sort of evidence (i.e., speculation) would provide reasonable support for projections of future management behavior. No such information is suggested by the Majority, nor is there any intimation in our regulations or in relevant Commission rulings. Undertaking a hearing in these circumstances will necessarily result in examination of current management practices — a task outside the scope of this proceeding — and involve speculation about how such current performance can be projected to the PEO — which involves psychology, and other human behavioral sciences not amenable to definitive assessment, and will, of necessity, require a nonscientific evaluation of testimony and evidence; it is likely to be an exercise in futility.

such matters go to the merits and must, therefore, be dealt with in a hearing on the merits. By creating a vague threshold and casting its analysis as it has, the Majority ruling would result in virtually every instance in admission of each contention in which there is such an allegation, because, in the Majority's view, any determination regarding the level of "problems" is for the merits, not for contention admissibility.[19] The Majority's approach is, for all practical purposes, identical to acceptance of notice pleading, which has been roundly rejected by the Commission,[20] for all a petitioner would need to do to create an admissible contention on these premises would be, as SLOMFP has done here, to identify a series of reports of noncompliance and couple those with an assertion that the noncompliances are in a specific area important to managing aging of safety-related equipment and indicative of significant managerial difficulties.[21]

Setting aside for a moment the fact that matters of current compliance with the CLB are outside the scope of any license renewal proceeding, the Board must consider what the single case relied upon (and, at the same time, distinguished so that its principles regarding contention admissibility need not be accepted) by the Majority advises might be the sort of historical performance failures by management which could rise to the level sufficient to form the basis for an admissible contention regarding the expectations of management failures during the PEO. All licensees receive periodic inspection reports and many of those reports point out flaws in current programs or the application of those programs. As Staff is charged with assurance of the public health and safety, I cannot imagine that any violation or noncompliance would be permitted to go on unchecked if it could reasonably be expected to endanger the public health and safety. And, the logical corollary is that if such an ongoing unchecked noncompliance is considered to do so, the Staff would enforce the regulatory requirements, eventually leading,

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[19] The Majority finds

> SLOMFP is not alleging that there is a lack of reasonable assurance that PG&E can comply with its current license. Maybe it can, and maybe it cannot. But that is not the point of TC-1. Current compliance with the CLB or license, or the shutdown of DCNPP is not the issue. SLOMFP is arguing that PG&E has not yet shown that there is reasonable assurance that it actually *will* adequately manage aging in accordance with the CLB in the future, during the PEO. Second, the existence of reasonable assurance, or not, is a merits decision. It would be premature to adjudicate the merits of TC-1 at the contention admissibility stage.

Majority Ruling at p. 337.

[20] *See, e.g., Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 482 (2010); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 120 (2009); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 118-19 (2006).

[21] The Majority attempts to minimize this effect by asserting that its admission is "narrow," but its logic vitiates that assertion.

if the problems remain unchecked, to actual enforcement actions.[22] Thus the absence of any enforcement actions by the NRC would plainly indicate that the circumstances are not serious enough, in the eyes of the responsible agency, to create the sort of health or safety problem which would give rise to admissible challenges to expectations of future management behavior. *Georgia Tech* advises that, at the very minimum, for a series of historical violations of the CLB to be serious enough to form the basis for a contention challenging whether or not the actual aging management program at issue in a license renewal case will be carried out by the licensee's management during the PEO such that the program is implemented in the form in which it has been accepted by the Commission, there must at least be evidence that the NRC Staff charged with assurance of compliance with the CLB found those violations so serious that they took enforcement action against the licensee.[23] In the present circumstance, there is no assertion that the Staff believed the noted noncompliances rise to that level, and there is no assertion of, or reference to, any enforcement action. Thus, it is plain to me that objective interpretation of our regulatory requirements and the legal authority to which the Majority itself refers, advises that the information contained in the IIRs upon which SLOMFP relies and the assertions of SLOMFP based thereupon simply do not form the basis for an admissible contention such as the Majority would find in SLOMFP's allegations and, as the Majority would reformulate it, admit.

C. Contention TC-1 is Inadmissible

For the foregoing reasons, I would find TC-1 inadmissible.

Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

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[22] The NRC's records are replete with enforcement activities against licensees, and not a single enforcement action against this licensee was cited by Petitioner in this instance.

[23] Further, I would not take lightly that the Commission in *Georgia Tech* found it significant that there was at least one expert witness in support of the contention.

ATTACHMENT A

LIST OF ADMITTED CONTENTIONS (AS NARROWED)

CONTENTION EC-1: PG&E's Severe Accident Mitigation Alternatives ("SAMA") analysis fails to satisfy 40 C.F.R. § 1502.22 because it fails to consider information regarding the Shoreline fault that is necessary for an understanding of seismic risks to the Diablo Canyon nuclear power plant. Further, that omission is not justified by PG&E because it has failed to demonstrate that the information is too costly to obtain. As a result of the foregoing failures, PG&E's SAMA analysis does not satisfy the requirements of the National Environmental Policy Act ("NEPA") for consideration of alternatives or NRC implementing regulation 10 C.F.R. § 51.53(c)(3)(ii)(L).

CONTENTION EC-2: PG&E's Environmental Report is inadequate to satisfy NEPA because it does not address the airborne environmental impacts of a spent fuel pool accident caused by an earthquake adversely affecting DCNPP.

CONTENTION EC-4: The Environmental Report fails to satisfy the National Environmental Policy Act (NEPA) because it does not discuss the cost-effectiveness of measures to mitigate the environmental impacts of an attack on the Diablo Canyon reactor during the license renewal term.

CONTENTION TC-1:[1] The applicant, Pacific Gas & Electric Company (PG&E), has failed to satisfy 10 C.F.R. § 54.29's requirement to demonstrate a reasonable assurance that it can and will "manage the effects of aging" in accordance with the current licensing basis. PG&E has failed to show how it will address and rectify an ongoing adverse trend with respect to recognition, understanding, and management of the Diablo Canyon Nuclear Power Plant's design/licensing basis which undermines PG&E's ability to demonstrate that it will adequately manage aging in accordance with this same licensing basis as required by 10 C.F.R. § 54.29.

[1] This contention was held to be admissible by a majority of the Board.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

William J. Froehlich, Chairman
Dr. Richard F. Cole
Dr. Mark O. Barnett

In the Matter of **Docket No. 40-9075-MLA**
(ASLBP No. 10-898-02-MLA-BD01)

POWERTECH (USA), INC.
(Dewey-Burdock In Situ Uranium Recovery Facility) **August 5, 2010**

RULES OF PRACTICE: STANDING TO INTERVENE

A petitioner's participation in a licensing proceeding hinges on a demonstration that the petitioner has standing. Section 189a of the Atomic Energy Act of 1954 (AEA), 42 U.S.C. §§ 2011 to 2297h-13 (2006), mandates that the NRC provide a hearing "upon the request of any person whose interest may be affected by the proceeding." *Id.* § 2239(a)(1)(A). The Commission's regulations specify that a petition for review and request for hearing must include a showing that the petitioner has standing and that the Board should consider (1) the nature of the petitioner's right under the AEA or the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 (2006), 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. 10 C.F.R. § 2.309(a), (d)(1)(ii)-(iv).

RULES OF PRACTICE: STANDING TO INTERVENE

The Commission customarily follows judicial concepts of standing. *Quivira*

Mining Co. (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 5-6 (1998) (citing *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976)). In order to establish standing in federal court, a party must show three key elements: injury-in-fact, causation, and redressability. *Lujan v. Defenders of Wildlife,* 504 U.S. 555, 560-61 (1992). As the Commission has stated, standing requires that a petitioner allege "a particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision." *Quivira,* CLI-98-11, 48 NRC at 6 (citing *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)).

RULES OF PRACTICE: STANDING TO INTERVENE (PROXIMITY PRESUMPTION)

In proceedings involving nuclear power reactors a petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and redressability if the petitioner lives within 50 miles of the nuclear power reactor. *See, e.g., Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989) (observing that the presumption applies in proceedings for nuclear power plant "construction permits, operating licenses, or significant amendments thereto"). However, no such proximity presumption applies in source materials cases such as this one. *See USEC Inc.* (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 311-12 (2005).

RULES OF PRACTICE: STANDING TO INTERVENE (INJURY IN FACT)

Under judicial concepts of standing, a petitioner must suffer from, or be in imminent danger of suffering, an injury-in-fact. The Supreme Court has defined injury-in-fact as "an invasion of a legally protected interest which is . . . concrete and particularized and actual or imminent rather than conjectural or hypothetical." *Lujan,* 504 U.S. at 560. An injury-in-fact must go beyond generalized grievances to affect a petitioner "in a personal and individual way." *Id.* at 560 n.1. Thus, standing generally has been denied when the threat of injury is not concrete and particularized. *See, e.g., Whitmore v. Arkansas,* 495 U.S. 149, 158-59 (1990); *Los Angeles v. Lyons,* 461 U.S. 95, 105-06 (1983).

RULES OF PRACTICE: STANDING TO INTERVENE (ZONE OF INTERESTS)

A petitioner's claimed injury must be arguably within the zone of interests protected by the governing statute in the proceeding. *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195-96 (1998). "In order to determine whether an interest is in the 'zone of interests' of a statute, it is necessary 'first [to] discern the interests "arguably . . . to be protected" by the statutory provision at issue,' and 'then [to] inquire whether the [petitioner's] interests affected by the agency action are among them.'" *U.S. Enrichment Corp.* (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 273 (2001) (citing *National Credit Union Administration v. First National Bank,* 522 U.S. 479, 492 (1998)).

RULES OF PRACTICE: STANDING TO INTERVENE (CAUSATION)

To establish causation, a petitioner must show that there is "a causal connection between the injury and the conduct complained of — the injury has to be 'fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third party not before the court.'" *Lujan,* 504 U.S. at 560 (citing *Simon v. Eastern Kentucky Welfare Rights Organization,* 426 U.S. 26, 41-42 (1976)). In source materials cases, the petitioner has the burden of showing a "specific and plausible means" by which the proposed license activities may affect him or her. *See American Centrifuge,* CLI-05-11, 61 NRC at 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." (internal citations omitted)). Petitioners must therefore demonstrate a plausible chain of causation between the licensed activity and the alleged injury. A Board's determination of standing does "not depend[ ] on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible." *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994). *See also Crow Butte Resources, Inc.* (*Crow Butte II*) (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 345 (2009).

RULES OF PRACTICE: STANDING TO INTERVENE (REDRESSABILITY)

The third requirement necessary for a petitioner to demonstrate standing is redressability. Redressability requires a petitioner to show that its alleged injury-in-fact could be cured or alleviated by some action of the tribunal. *Sequoyah*

Fuels Corp. (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13-14 (2001); *Westinghouse Electric Corp.* (Nuclear Fuel Export License for Czech Republic — Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 331 (1994). For example, if a petitioner showed that the modification or denial of the Application would mitigate or eliminate her alleged injuries, then she would have satisfied the redressability requirement.

RULES OF PRACTICE: STANDING (ORGANIZATIONS)

While an individual may establish standing by satisfying the foregoing criteria, an organization, such as an environmental group, state or local government, or Indian Tribe, must satisfy one of two additional criteria. It must demonstrate either "organizational" standing or "representational" standing. *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995) ("An organization may base its standing on either immediate or threatened injury to its organizational interests, or to the interests of identified members. To derive standing from a member, the organization must demonstrate that the individual member has standing to participate, and has authorized the organization to represent his or her interests." (internal citations omitted)).

RULES OF PRACTICE: STANDING (ORGANIZATIONAL STANDING)

To establish organizational standing under 10 C.F.R. § 2.309(d)(1), an organization must demonstrate that (1) the action at issue will cause an injury-in-fact to the organization's interests and (2) the injury is within the zone of interests protected by NEPA or the AEA. *See Sierra Club v. Morton,* 405 U.S. 727, 739 (1972); *Georgia Tech,* CLI-95-12, 42 NRC at 115; *Yankee Atomic,* CLI-98-21, 48 NRC at 194-95; *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), ALAB-952, 33 NRC 521, 530 (1991). To assert an appropriate injury for organizational standing, an organization must demonstrate a palpable injury in fact to its organizational interests. *Turkey Point,* ALAB-952, 33 NRC at 530. The Supreme Court in *Sierra Club v. Morton,* 405 U.S. 727, explained that the injury-in-fact necessary to establish organizational standing must be more than "a mere 'interest in a problem,' no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem . . . ." *Id.* at 739. Instead, an organization must go beyond asserting an injury to a broad, generalized interest — i.e., an interest in protecting the environment, an interest in preserving national parks — and establish that it is suffering, or will suffer, from a specific, concrete harm caused by a third party.

RULES OF PRACTICE: STANDING (REPRESENTATIONAL STANDING)

An organization asserting "representational" standing must (1) demonstrate that the interest of at least one of its members will be harmed; (2) demonstrate that the member would have standing in his or her own right; (3) identify that member by name and address; and (4) demonstrate that the organization is authorized to request a hearing on behalf of that member. *See GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 194 (2000); *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000). Representational standing is based on an alleged harm to an organization's members, whereas organizational standing involves an alleged harm to the organization itself.

RULES OF PRACTICE: STANDING TO INTERVENE (PROXIMITY PRESUMPTION)

In cases involving ISL uranium mining and other source materials licensing, a petitioner must demonstrate the requisite elements of standing, i.e., injury, causation, and redressability, because the Commission has held that proximity to the proposed facility alone is not adequate to demonstrate standing. *See Consumers Energy Co.* (Big Rock Point Independent Spent Fuel Storage Installation), CLI-07-19, 65 NRC 423, 426 (2007); *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998).

RULES OF PRACTICE: STANDING TO INTERVENE

The Commission has placed the burden on the petitioner to allege a "specific and plausible means" by which contaminants from mining activities may adversely affect him or her, *Nuclear Fuel Services, Inc.* (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004) (citing *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000)); that is to say, each individual Petitioner must show that there is a "specific and plausible means" by which contaminants from the applicant's proposed mine will reach the aquifer or surface waters from which that Petitioner draws water.

RULES OF PRACTICE: STANDING TO INTERVENE

In *HRI,* the Board held that standing can be granted to a petitioner in a materials licensing case where that petitioner "uses a substantial quantity of water personally or for livestock from a source that is reasonably contiguous to either the injection or processing sites," as such a showing demonstrates a plausible

injury-in-fact. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 275 (1998). Where no petitioner claims to live on or immediately adjacent to the applicant's proposed mining site, the Board must determine whether the individual Petitioners have presented sufficient evidence to establish that a plausible pathway exists through which contaminants could migrate from the proposed mining site to the Petitioners' water sources. *See Crow Butte II,* CLI-09-9, 69 NRC at 345.

RULES OF PRACTICE: STANDING (BURDEN OF PROOF)

A Board's standing analysis must "avoid 'the familiar trap of confusing the standing determination with the assessment of a petitioner's case on the merits.'" *HRI,* LBP-98-9, 47 NRC at 272 (citing *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54 (1994)). Petitioners are not required to demonstrate their asserted injury with certainty at this stage, or to "provide extensive technical studies" in support of their standing argument. *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 31 (1999) (citing *Sequoyah Fuels,* CLI-94-12, 40 NRC at 72). Such determinations are reserved for adjudication of the merits. A determination that "the injury is fairly traceable to the [challenged] action . . . [does] not depend[ ] on whether the cause of the injury flows directly from the challenged action, but *whether the chain of causation is plausible.*" *Sequoyah Fuels,* CLI-94-12, 40 NRC at 75 (emphasis added).

RULES OF PRACTICE: STANDING (REPRESENTATIONAL STANDING)

An individual petitioner may not request to intervene in his or her own right while simultaneously authorizing other petitioners to represent his or her interests in the proceeding. The Commission has stated that such multiple representation might lead to confusion as to whether the individual or the organization was speaking for the petitioner. *Big Rock,* CLI-07-19, 65 NRC at 426 (citing *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-89-30, 30 NRC 311, 316 (1989) ("[A petitioner] can have her interest protected by participating as an individual or by having [an organization] represent her interest. It would be detrimental to the process to have a person appear in the proceeding individually and to be represented by an organization. . . .")).

RULES OF PRACTICE: STANDING TO INTERVENE (NATIVE AMERICAN TRIBE)

A federally recognized Indian tribe may seek to participate in this proceeding as provided in 10 C.F.R. § 2.309(d)(2). However, where the proposed facility will not be located within the Tribe's boundaries, the Tribe must meet the standing requirements imposed by 10 C.F.R. § 2.309(d)(1) by showing "a concrete and particularized injury that is . . . fairly traceable to the challenged action and [is] likely to be redressed by a favorable decision." *See, e.g., Yankee Atomic,* CLI-98-21, 48 NRC at 195; *Georgia Tech,* CLI-95-12, 42 NRC at 115; *Perry,* CLI-93-21, 38 NRC at 92 (citing *Lujan,* 504 U.S. at 561).

RULES OF PRACTICE: STANDING TO INTERVENE (ZONE OF INTERESTS)

The preservation of Native American cultural traditions is a protected interest under federal law. *See Havasupai Tribe v. United States,* 752 F. Supp. 1471 (D. Ariz. 1990); *United States ex rel. Chunie v. Ringrose,* 788 F.2d 638 (9th Cir. 1986); *United States v. Pend Oreille County Public Utility District No. 1,* 585 F. Supp. 606 (D. Wash. 1984); *Ute Indians v. United States,* 28 Fed. Cl. 768 (1993). If this interest is endangered or harmed, it qualifies as a cognizable injury for AEA standing purposes under *Crow Butte II.*

RULES OF PRACTICE: STANDING TO INTERVENE (ZONE OF INTERESTS)

Section 106 of the NHPA provides the Tribe with a procedural right to protect its interests in cultural resources. The Supreme Court has held that a party claiming violations of this procedural right is to be accorded a special status when it comes to standing: "The 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." *Lujan,* 504 U.S. at 572 n.7. To establish an injury-in-fact, a party merely has to show "some threatened concrete interest personal" to the party that NHPA was designed to protect. *Nulankeyutmonen Nkihtaqmikon v. Impson,* 503 F.3d 18 (1st Cir. 2007) (citing *Lujan,* 504 U.S. at 572-73 nn.7-8).

RULES OF PRACTICE: STANDING TO INTERVENE (ZONE OF INTERESTS)

Federal law not only recognizes that Native American tribes have a protected interest in cultural resources found on their aboriginal land, but as well has

imposed on federal agencies a consultation requirement under the NHPA to ensure the protection of tribal interests in cultural resources.

RULES OF PRACTICE: CONTENTIONS

In order to participate as a party in a proceeding before the Board, a petitioner 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). *See* 10 C.F.R. § 2.309(a). 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. *Id.* § 2.309(f)(1).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

The purpose of these section 2.309(f)(1) requirements is to "focus litigation on concrete issues and result in a clearer and more focused record for decision." Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004). The Commission has stated that "the hearing process [is intended only for] issues that are 'appropriate for, and susceptible to, resolution in an NRC hearing.'" *Id.* Furthermore, "[w]hile a board may view a petitioner's supporting information in a light favorable to the petitioner . . . the petitioner (not the board) [is required] to supply all of the required elements for a valid intervention petition." *AmerGen Energy Co.* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

The rules on contention admissibility are "strict by design." *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). Further, absent a waiver, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications. 10 C.F.R. § 2.335(a). Failure to comply with any of these requirements is grounds for not admitting a contention. *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 636 (2004).

RULES OF PRACTICE: CONTENTIONS (CONTENTION OF OMISSION)

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." 10 C.F.R. § 2.309(f)(1)(vi). 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. *Id.* § 2.309(f)(1)(iii).

RULES OF PRACTICE: CONTENTIONS (CONTENTION OF OMISSION)

Section 2.309(f)(1)(v) requires the petitioner to provide a concise statement of the alleged 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 legally required missing information." *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)). 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 only that the application is incomplete.

If an applicant cures the omission, the contention will become moot. *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).

RULES OF PRACTICE: CONTENTIONS (CONTENTION OF OMISSION)

If the contention makes a *prima facie* allegation 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," *Pa'ina,* LBP-06-12, 63 NRC at 414, in accordance with section 2.309(f)(1)(iv).

RULES OF PRACTICE: CONTENTIONS (BURDEN OF GOING FORWARD)

A petitioner, especially one represented by counsel, bears the burden of going forward and specifically addressing each of the six elements in 10 C.F.R. § 2.309(f)(1) for each contention proffered. A single sentence labeled a contention, with no reference to the six elements of section 2.309(f)(1), does not an admissible contention make.

RULES OF PRACTICE: CONTENTIONS (BURDEN OF GOING FORWARD)

Commission case law supports the conclusion that it is not the Board's duty to forage through a petition in order to find statements or other support that may be located in various portions of the petition but not referenced in the contention. *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-3, 29 NRC 234, 240-41 (1989) ("The Commission expects parties to bear their burden and to clearly identify the matters on which they intend to rely with reference to a specific point. The Commission cannot be faulted for not having searched for a needle that may be in a haystack."). A properly pled contention needs to lay out explicitly the required criteria of 10 C.F.R. § 2.309(f)(1)(i)-(vi) in order to be admissible, 69 Fed. Reg. at 2221; a licensing board cannot be expected to go on a veritable scavenger hunt to find the missing pieces needed for an admissible contention.

RULES OF PRACTICE: CONTENTIONS (MATERIALITY)

Issues of disorganization in an application cannot be said to be germane to the licensing process. According to the Board in *HRI,* "[a]ny area of concern is germane if it is relevant to whether the license should be denied or conditioned." LBP-98-9, 47 NRC at 280. The organization or format of an application was not

considered by that Board to be germane because the objection to the application's organization was not an objection to the licensing action at issue in the proceeding.

RULES OF PRACTICE: CONTENTIONS (BURDEN OF GOING FORWARD)

It is not within the province of a Licensing Board to piece together and create an admissible contention from a lengthy petition with numerous affidavits, declarations, and exhibits in an effort to create a viable contention. Rather, it is the responsibility of the petitioner to submit a contention containing all six elements required by 10 C.F.R. § 2.309(f)(1) in an orderly and organized fashion. Simply put, it is a petitioner's burden of going forward at this stage of the proceeding to submit a complete, self-contained contention addressing each of the elements required by 10 C.F.R. § 2.309(f)(1). To be admissible, a contention must comply with every requirement listed in 10 C.F.R. § 2.309(f)(1).

NEPA: REQUIREMENTS

While the duty to comply with NEPA falls upon the agency and not upon the applicant or licensee, *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 34 (2010), the requirements of Part 51 must be met by the applicant. Section 51.45 clearly requires an applicant to discuss in its ER "[t]he impact of the proposed action on the environment." 10 C.F.R. § 51.45(b)(1). Since an impact analysis under NEPA requires that cultural and historic resources be considered, we conclude that a sufficient discussion of cultural and historic resources must be included in an applicant's ER.

NEPA: AGENCY RESPONSIBILITIES

As the Commission made clear in *Crow Butte II,* it is not the duty of an applicant to consult with a Tribe regarding cultural resources at a proposed site, but instead is the duty of the agency to initiate and follow through with the consultation process. 36 C.F.R. § 800.2(c)(2)(ii)(D) (stating that "[w]hen Indian tribes . . . attach religious and cultural significance to historic properties off tribal lands, section 101(d)(6)(B) of the act requires *Federal agencies* to consult with such Indian tribes . . ." (emphasis added)). The alleged failure to consult in this proceeding, therefore, cannot be the fault of the applicant. And, because the NRC Staff has not completed its environmental review of the proposed project, this Board cannot find that they have been dilatory in their duty to consult with the Tribe. As noted by the Commission in its *Crow Butte II* ruling, the Tribe is free to file a contention later on in this proceeding if, after the Staff releases its

environmental documents, the Tribe believes that the Staff has failed to satisfy its obligations under NEPA and the NHPA. *Crow Butte II,* CLI-09-9, 69 NRC at 351.

MATERIALS LICENSE UNDER PART 40: APPLICABILITY OF REQUIREMENTS

Commission precedent makes clear that 10 C.F.R. § 40.31(h) applies to uranium mills, and not to ISL facilities. *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 8 (1999). In fact, the Commission has held that, while Part 40 generally applies to ISL mining, Appendix A to Part 40, including Criterion 1, was "designed to address the problems related to mill tailings and not problems related to injection mining." *Id.* (citing *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-99-1, 49 NRC 29, 33 (1999)). There are, however, certain safety provisions in Appendix A, such as Criterion 2, that are relevant and do apply to ISL mining. *Id.* The Presiding Officer in *HRI* concluded that the principal regulatory standards for ISL applications are 10 C.F.R. § 40.32(c) and (d), "which mandate protection of public health and safety," *HRI,* CLI-99-22, 50 NRC at 9; an exceedingly general requirement.

NEPA: REQUIREMENTS

It is settled law that an applicant is not bound by NEPA, but by NRC regulations in Part 51. *Levy County,* CLI-10-2, 71 NRC at 34. The NRC Staff, however, is bound by NEPA.

NEPA: CEQ REGULATIONS

While this agency gives substantial deference to CEQ regulations, it is not bound to follow them. *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-06-19, 64 NRC 53, 62 n.3 (2006) (citing *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348 n.22 (2002)). As an independent agency, the NRC has the authority to promulgate its own regulations implementing NEPA and is only bound by CEQ regulations when the NRC expressly adopts them. *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 257 n.14 (2006); *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 154 (2005). The NRC has recognized its obligation to comply with NEPA, however, and has promulgated the regulations in Part 51, which govern "the consideration of the environmental impact of the

licensing and regulatory actions of the agency." *Limerick Ecology Action, Inc. v. NRC,* 869 F.2d 719, 725 (3d Cir. 1989).

NEPA: CONTENTIONS

RULES OF PRACTICE: CONTENTIONS (IMPERMISSIBLE CHALLENGE TO NRC REGULATIONS)

The regulations clearly state that a petitioner must file a NEPA contention challenging an applicant's ER at the time the petitioner requests a hearing. 10 C.F.R. § 2.309(f)(2) ("On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report."). Any challenge to this regulation is not litigable in this proceeding, and cannot be admitted as a contention under 10 C.F.R. § 2.335. Absent a showing of "special circumstances" under 10 C.F.R. § 2.335(b), this matter must be addressed through Commission rulemaking.

NEPA: AGENCY RESPONSIBILITIES

In the context of the NEPA review process, the duty of the lead agency to consider the actions of other federal agencies involved in a licensing action, is the responsibility of the NRC and not of the applicant. *Levy County,* CLI-10-2, 71 NRC at 34.

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES

As required by 10 C.F.R. § 2.310(a), upon admission of a contention in a licensing proceeding, the Board must identify the specific hearing procedures to be used to settle the contention. NRC regulations provide for a number of different hearing procedures. First, there is Subpart G, 10 C.F.R. Part 2, which is mandated for certain proceedings, *see, e.g., id.* § 2.310(d). and establishes NRC "Rules for Formal Adjudications," in which parties are permitted to "propound interrogatories, take depositions, and cross-examine witnesses without leave of the Board." *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 201-02 (2006). Second, there is Subpart L, 10 C.F.R. Part 2, which provides for more "informal" proceedings in which discovery is generally prohibited (except for (1) specified mandatory disclosures under 10 C.F.R. § 2.336(f), (a), and (b); and (2) the mandatory production of the hearing file under 10 C.F.R. § 2.1203(a)). *Id.* § 2.1203(d). Under Subpart L, the Board has the primary responsibility for questioning the witnesses at any evidentiary hearing. *Id.* § 2.1207(b)(6).

RULES OF PRACTICE: SELECTION OF HEARING PROCEDURES

The selection of hearing procedures for contentions at the outset of a proceeding is not immutable because, *inter alia,* the availability of Subpart G procedures under 10 C.F.R. § 2.310(d) depends critically on whether the credibility of eyewitnesses is important in resolving a contention, and witnesses relevant to each contention are not identified, under 10 C.F.R. § 2.336(a)(1), until *after* contentions are admitted. *See Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 272 (2007); *see also* 10 C.F.R. § 2.1402(b).

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MEMORANDUM AND ORDER
(Ruling on Petitions to Intervene and Requests for Hearing)

I. INTRODUCTION

Before this Board are two petitions to intervene and requests for a hearing. The first petition was filed by six individuals and two organizations sharing common counsel (Consolidated Petitioners),[1] and the second was filed by the Oglala Sioux Tribe (Oglala Sioux or Tribe).[2] These petitions to intervene and requests for hearing challenge an application submitted by Powertech (USA), Inc. (Powertech) requesting a license to construct and to operate a proposed in-situ

[1] Consolidated Request for Hearing and Petition for Leave to Intervene (Mar. 8, 2010) (ADAMS Accession No. ML100680010) (Petition). David Frankel, Esq., filed the Petition on his own behalf and on behalf of the following persons and organizations: Theodore P. Ebert, Gary Heckenlaible, Susan Henderson, Dayton Hyde, Lilias C. Jones Jarding, the Clean Water Alliance, and Aligning for Responsible Mining. *Id.* at 1.

[2] Petition to Intervene and Request for Hearing of the Oglala Sioux Tribe (Apr. 6, 2010) (ADAMS Accession No. ML100960645) (Tribe Petition).

leach uranium recovery (ISL) facility in Custer and Fall River Counties, South Dakota.[3] This facility is to be known as the Dewey-Burdock ISL facility.

Notice of the Powertech license application (Application) was published in the *Federal Register* on January 5, 2010.[4] That publication provided interested parties notice of the Application and the opportunity to request a hearing.

In this Memorandum and Order, we find that three individuals and the two organizations among the Consolidated Petitioners have demonstrated they have standing to participate in this proceeding, and one of their contentions as pled and three of their contentions as modified by the Board are admissible. Three other members of the Consolidated Petitioners have not demonstrated standing and are not admitted. We also find that the Oglala Sioux Tribe has shown it has standing to participate in this proceeding and three of its contentions as pled and one as modified by the Board are admissible.

Based on these findings, we grant the hearing requests of the Consolidated Petitioners and the Oglala Sioux Tribe and admit them as parties in this proceeding.

II. BACKGROUND

Powertech originally submitted an application on February 25, 2009, for a combined source[5] and 11e(2) byproduct material license[6] to construct and operate the proposed Dewey-Burdock ISL facility in the Black Hills region of South Dakota on February 25, 2009.[7] By letter dated June 19, 2009, Powertech withdrew the application in order to revise the application to provide additional NRC Staff-requested information on hydrology/site characterization, waste disposal, location of extraction operations, protection of water resources, and operational issues. Powertech resubmitted its Dewey-Burdock license application on August 10, 2009, with additional data and information requested by the NRC Staff.[8] The

[3] Powertech (USA) Inc.'s Submission of an Application for a Nuclear Regulatory Commission Uranium Recovery License for Its Proposed Dewey-Burdock In-Situ Leach Uranium Recovery Facility in the State of South Dakota (Feb. 25, 2009) (ADAMS Accession No. ML091030707).

[4] Notice of Opportunity for Hearing, License Application Request of Powertech (USA), Inc. Dewey-Burdock In Situ Uranium Recovery Facility in Fall River and Custer Counties, SD, and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information (SUNSI) for Contention Preparation, 75 Fed. Reg. 467 (Jan. 5, 2010).

[5] The Atomic Energy Act of 1954, as amended, defines "source material" in section 11(z). 42 U.S.C. § 2014. *See also* 10 C.F.R. § 40.4.

[6] The Atomic Energy Act of 1954, as amended, defines "byproduct material" in section 11(e)(2). 42 U.S.C. § 2014. *See also* 10 C.F.R. §§ 30.4 and 40.4.

[7] *See supra* note 3.

[8] Dewey-Burdock Project Supplement to Application for NRC Uranium Recovery License Dated February 2009 (Aug. 10, 2009) (ADAMS Accession No. ML092870155).

NRC Staff accepted Powertech's Application for docketing on October 2, 2009,[9] and subsequently published a January 5, 2010 notice of opportunity to request a hearing on the Application, along with instructions on how to gain access to sensitive unclassified nonsafeguards information (SUNSI) associated with the Application.[10]

On January 15, 2010, Consolidated Petitioners submitted a request for access to SUNSI material,[11] which was reviewed and denied by the NRC Staff.[12] Consolidated Petitioners then joined a motion filed by the Oglala Sioux for a 90-day extension of time to file its hearing request, which was opposed by both Powertech and the NRC Staff, and was subsequently denied by the Commission on March 5, 2010.[13] On March 8, 2010, Consolidated Petitioners filed their Request for Hearing and Petition for Leave to Intervene,[14] and this Licensing Board was established on March 12, 2010.[15] After requesting and being granted an extension of time by this Licensing Board,[16] Powertech and the NRC Staff filed their answers to the Consolidated Petition on April 12, 2010,[17] and Consolidated Petitioners filed their reply to the Powertech and NRC Staff answers on April 22, 2010.[18]

The Oglala Sioux requested access to SUNSI in this case on January 15, 2010,

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[9] Results of Acceptance Review, Powertech (USA), Inc.'s Proposed Dewey-Burdock Facility, Fall River and Custer Counties, South Dakota (Oct. 2, 2009) (ADAMS Accession No. ML092610201).

[10] *See* 75 Fed. Reg. at 467.

[11] E-mail Request from David Cory Frankel, Legal Director for Aligning for Responsible Mining, et al. for Access to Sensitive Unclassified Non-safeguards Information (SUNSI) (Jan. 15, 2010) (ADAMS Accession No. ML100192098).

[12] NRC Staff Response to David Frankel Denying Request for Access to SUNSI Information (Jan. 25, 2010) (ADAMS Accession No. ML100252219).

[13] Order of the Secretary (Mar. 5, 2010) (unpublished) (ADAMS Accession No. ML100640426).

[14] *See supra* note 1.

[15] Establishment of Atomic Safety and Licensing Board (Mar. 12, 2010) (unpublished); *see also* Powertech (USA), Inc.; Establishment of Atomic Safety and Licensing Board, 75 Fed. Reg. 13,141 (Mar. 18, 2010).

[16] *See* Joint Motion for Extension of Time for Late-Filed Contentions and to Respond to Request for Hearing (Mar. 31, 2010) (ADAMS Accession No. ML100900058); Licensing Board Order (Granting Motion for Extension of Time) (Apr. 1, 2010) (unpublished) (ADAMS Accession No. ML100910251). This Order also granted Consolidated Petitioners additional time to file new or amended contentions based on information recently released by the Staff. *Id.* at 2.

[17] Applicant Powertech (USA) Uranium Corporation's Response to Consolidated Petitioners' Request for a Hearing/Petition for Intervention (Apr. 12, 2010) (ADAMS Accession No. ML101020722) (Powertech Answer to Petition); NRC Staff Response to Hearing Request of Consolidated Petitioners (Apr. 12, 2010) (ADAMS Accession No. ML101020723) (Staff Answer to Petition).

[18] Petitioners' Consolidated Reply to Applicant and NRC Staff Answers to Hearing Request/Petition to Intervene (Apr. 19, 2010) (ADAMS Accession No. ML101100001) (Reply).

and was granted access by the NRC Staff on January 25, 2010.[19] As a result, a Protective Order granting access to the requested information was issued by the Chief Administrative Judge of the Licensing Board Panel on March 5, 2010.[20] The Protective Order stated that the Oglala Sioux was to file its Hearing Request within 25 days of receiving the SUNSI material from the NRC Staff.[21] The Oglala Sioux timely filed its Hearing Request and Petition for Leave to Intervene on April 6, 2010.[22] Powertech and the NRC Staff timely filed answers to the Oglala Sioux Petition on May 3, 2010,[23] and the Oglala Sioux filed its reply to the Powertech and NRC Staff answers on May 14, 2010.[24]

On April 30, 2010, Consolidated Petitioners filed a new contention (designated Contention K by the Board), which they state is based on SUNSI material provided to Consolidated Petitioners' expert on April 1, 2010.[25] Answers to Contention K were timely filed by the NRC Staff and Powertech on May 21, 2010, and May 23, 2010, respectively.[26] The Consolidated Petitioners, however, did not file a reply to the Powertech and NRC Staff answers.[27]

The Board held an oral argument on standing and contention admissibility in Custer, South Dakota, on June 8 and 9, 2010.

III. THE ISL PROCESS

With this procedural backdrop established, we note by way of explanation the

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[19] *See* NRC Staff Response to Grace Dugan Granting Access to SUNSI Information (ADAMS Accession No. ML100210203) (Jan. 25, 2010).

[20] Licensing Board Order (Protective Order Governing the Disclosure of Sensitive Unclassified Non-Safeguards Information (SUNSI)), (Mar. 5, 2010) (unpublished) (ADAMS Accession No. ML100640405) (Protective Order).

[21] *Id.* at 4.

[22] *See supra* note 2.

[23] Applicant Powertech (USA) Inc.'s Response to Petitioner Oglala Sioux Tribe's Request for a Hearing/Petition for Intervention (May 3, 2010) (ADAMS Accession No. ML101230722) (Powertech Answer to Tribe); NRC Staff's Response to Oglala Sioux Tribe's Hearing Request (May 3, 2010) (ADAMS Accession No. ML101230726) (Staff Answer to Tribe).

[24] Reply to NRC Staff and Applicant Responses to the Petition to Intervene and Request for Hearing of the Oglala Sioux Tribe (May 14, 2010) (ADAMS Accession No. ML101340870) (Tribe Reply).

[25] Petitioners' Request for Leave to File a New Contention Based on SUNSI Material (Apr. 30, 2010) (ADAMS Accession No. ML101200675) (New Contention).

[26] NRC Staff's Response to Consolidated Petitioners' Contention filed April 30, 2010 (May 21, 2010) (ADAMS Accession No. ML1014105410) (Staff Answer to New Contention); Applicant Powertech (USA) Uranium Corporation's Response to Consolidated Petitioners' Request for Leave to File a New Contention Based on SUNSI Material (May 23, 2010) (ADAMS Accession No. ML1014300009) (Powertech Answer to New Contention).

[27] Tr. at 381.

technical background to this proceeding. As described in Powertech's Application, an in situ leach facility, also known as an in situ recovery (ISR) facility, is designed to remove underground (subsurface) uranium without physical mining.[28] An aqueous solution, called a lixiviant, is injected into the naturally existing underground water (groundwater) through an injection well, which dissolves the uranium in the lixiviant. The lixiviant solution consists of oxygen, carbon dioxide, and water. The uranium-containing or pregnant lixiviant is then pumped back to the surface from a production well, where the uranium is removed from the lixiviant by a process called ion exchange. The uranium-free lixiviant is then reinjected back into the ground to dissolve more uranium, and the cycle is repeated until all of the economically recoverable uranium in the ore body has been removed.

The ion exchange resin used to remove the uranium from the lixiviant is used until its removal capacity has been exhausted. At that point, the ion exchange resin is flushed with salt water to wash the uranium from the ion exchange resin, and the resulting uranium-free ion exchange resin is reused. The uranium is then removed from the salt water solution by chemical precipitation, and the resulting uranium solids are then washed, dried, and packaged for offsite shipment. The packaged solid uranium powder is the final product of an ISL facility.

As noted above, there are both injection wells, which are used to inject the uranium-free lixiviant into the subsurface, and production wells, which are used to remove the uranium-laden lixiviant from the ground. In a typical configuration, four injection wells surround a center production well in a well field. In addition to continuously recycling the lixiviant, approximately 0.5 to 3% more groundwater is withdrawn from the production wells than is injected through the injection wells.

The purpose of withdrawing more water is to ensure that groundwater continuously flows from outside the ore zone, through the ore zone, and into the production well, which is intended to keep uranium-laden lixiviant from migrating beyond the injection wells and contaminating the surrounding groundwater. After treating the pregnant lixiviant to remove uranium (and associated radium), the bulk of the lixiviant is refortified with oxygen and carbon dioxide and reinjected into the ground through the injection well. The nominally uranium-free excess water (commonly referred to as "bleed") is either applied on the surface via irrigation or reinjected into the subsurface away from the ore zone.

In addition to injection and production wells, monitoring wells sited outside of and above the ore zone (and the associated injection and production wells)

[28] At oral argument, counsel for Powertech explained that ISL and ISR "are the same thing — just one is a newer term." Tr. at 31. Powertech's proposed uranium recovery method and process are described in section 1.7 of the Technical Report submitted with its Application (ADAMS Accession No. ML092870298).

are designed to detect any uranium that might inadvertently migrate beyond well fields. In so doing, the monitoring wells serve to detect any underground uranium leaks (excursions of lixiviant) from the ideally self-contained process.[29]

IV. STANDING OF PETITIONERS TO PARTICIPATE IN THIS PROCEEDING

A. Legal Requirements for Standing in NRC Proceedings

A petitioner's participation in a licensing proceeding hinges on a demonstration that the petitioner has standing. Section 189a of the Atomic Energy Act of 1954 (AEA)[30] mandates that the NRC provide a hearing "upon the request of any person whose interest may be affected by the proceeding."[31] The Commission's regulations specify that a petition for review and request for hearing must include a showing that the petitioner has standing and that the Board should consider (1) the nature of the petitioner's right under the AEA or the National Environmental Policy Act (NEPA)[32] 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.[33]

The Commission customarily follows judicial concepts of standing.[34] In order to establish standing in federal court, a party must show three key elements: injury-in-fact, causation, and redressability.[35] As the Commission has stated, standing requires that a petitioner allege "a particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision."[36] In proceedings involving nuclear power reactors a petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and

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[29] For a description of the proposed facility, *see* Technical Report at 3-1 to 3-57 (ADAMS Accession No. ML092870299).

[30] 42 U.S.C. §§ 2011 to 2297h-13 (2006).

[31] *Id.* § 2239(a)(1)(A).

[32] 42 U.S.C. § 4321 (2006).

[33] 10 C.F.R. § 2.309(a), (d)(1)(ii)-(iv).

[34] *Quivira Mining Co.* (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 5-6 (1998) (citing *Portland General Electric Co.* (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976)).

[35] *Lujan v. Defenders of Wildlife,* 504 U.S. 555, 560-61 (1992).

[36] *Quivira,* CLI-98-11, 48 NRC at 6 (citing *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)).

redressability if the petitioner lives within 50 miles of the nuclear power reactor.[37] However, no such proximity presumption applies in source materials cases such as this one.[38]

1. Injury-in-Fact

Under judicial concepts of standing, a petitioner must suffer from, or be in imminent danger of suffering, an injury-in-fact. The Supreme Court has defined injury-in-fact as "an invasion of a legally protected interest which is . . . concrete and particularized and actual or imminent rather than conjectural or hypothetical."[39] An injury-in-fact must go beyond generalized grievances to affect a petitioner "in a personal and individual way."[40] Thus, standing generally has been denied when the threat of injury is not concrete and particularized.[41]

Additionally, a petitioner's claimed injury must be arguably within the zone of interests protected by the governing statute in the proceeding.[42] "In order to determine whether an interest is in the 'zone of interests' of a statute, it is necessary 'first [to] discern the interests "arguably . . . to be protected" by the statutory provision at issue,' and 'then [to] inquire whether the [petitioner's] interests affected by the agency action are among them.'"[43] Generally, the AEA and NEPA are the statutes that govern proceedings before the Licensing Board. In this case, however, interests protected by the National Historic Preservation Act (NHPA)[44] are at issue as well.

2. Causation

To establish causation, a petitioner must show that there is "a causal connection between the injury and the conduct complained of — the injury has to be 'fairly . . . trace[able] to the challenged action of the defendant, and not . . . th[e]

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[37] *See, e.g., Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989) (observing that the presumption applies in proceedings for nuclear power plant "construction permits, operating licenses, or significant amendments thereto").

[38] *See USEC Inc.* (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 311-12 (2005).

[39] *Lujan,* 504 U.S. at 560 (internal citations omitted).

[40] *Id.* at 560 n.1.

[41] *See, e.g., Whitmore v. Arkansas,* 495 U.S. 149, 158-59 (1990); *Los Angeles v. Lyons,* 461 U.S. 95, 105-06 (1983).

[42] *Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195-96 (1998).

[43] *U.S. Enrichment Corp.* (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 273 (2001) (citing *National Credit Union Administration v. First National Bank,* 522 U.S. 479, 492 (1998)).

[44] 16 U.S.C. § 470 to 470x-6.

result [of] the independent action of some third party not before the court.'"[45] In source materials cases, the petitioner has the burden of showing a "specific and plausible means" by which the proposed license activities may affect him or her.[46] Petitioners must therefore demonstrate a plausible chain of causation between the licensed activity and the alleged injury. A Board's determination of standing does "not depend[ ] on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible."[47]

3. Redressability

The third requirement necessary for a petitioner to demonstrate standing is redressability. Redressability requires a petitioner to show that its alleged injury-in-fact could be cured or alleviated by some action of the tribunal.[48] For example, if a petitioner showed that the modification or denial of Powertech's Application would mitigate or eliminate her alleged injuries, then she would have satisfied the redressability requirement.

4. Standing of Organizations

While an individual may establish standing by satisfying the foregoing criteria, an organization, such as an environmental group, state or local government, or Indian Tribe, must satisfy one of two additional criteria. It must demonstrate either "organizational" standing or "representational" standing.[49] Organizational standing involves an alleged harm to the organization itself, whereas representational standing is based on an alleged harm to an organization's members.

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[45] *Lujan,* 504 U.S. at 560 (citing *Simon v. Eastern Kentucky Welfare Rights Organization,* 426 U.S. 26, 41-42 (1976)).

[46] *See USEC,* CLI-05-11, 61 NRC at 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." (internal citations omitted)).

[47] *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994). *See also Crow Butte Resources, Inc.* (*Crow Butte II*) (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 345 (2009).

[48] *Sequoyah Fuels Corp.* (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13-14 (2001); *Westinghouse Electric Corp.* (Nuclear Fuel Export License for Czech Republic — Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 331 (1994).

[49] *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995) ("An organization may base its standing on either immediate or threatened injury to its organizational interests, or to the interests of identified members. To derive standing from a member, the organization must demonstrate that the individual member has standing to participate, and has authorized the organization to represent his or her interests." (internal citations omitted)).

a. Organizational Standing

To establish organizational standing under 10 C.F.R. § 2.309(d)(1), an organization must demonstrate that (1) the action at issue will cause an injury-in-fact to the organization's interests and (2) the injury is within the zone of interests protected by NEPA or the AEA.[50] To assert an appropriate injury for organizational standing, an organization must demonstrate a palpable injury in fact to its organizational interests.[51] The Supreme Court in *Sierra Club v. Morton,*[52] explained that the injury-in-fact necessary to establish organizational standing must be more than "a mere 'interest in a problem,' no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem . . . ."[53] Instead, an organization must go beyond asserting an injury to a broad, generalized interest — i.e., an interest in protecting the environment, an interest in preserving national parks — and establish that it is suffering, or will suffer, from a specific, concrete harm caused by a third party.

b. Representational Standing

Alternatively, an organization can show standing by asserting "representational" standing, i.e., that it seeks to participate in the proceeding as the authorized representative of one or more of its individual members who themselves have standing. An organization asserting "representational" standing must (1) demonstrate that the interest of at least one of its members will be harmed; (2) demonstrate that the member would have standing in his or her own right; (3) identify that member by name and address; and (4) demonstrate that the organization is authorized to request a hearing on behalf of that member.[54] Representational standing is based on an alleged harm to an organization's members, whereas organizational standing involves an alleged harm to the organization itself.

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[50] *See Sierra Club v. Morton,* 405 U.S. 727, 739 (1972); *Georgia Tech,* CLI-95-12, 42 NRC at 115; *Yankee Atomic,* CLI-98-21, 48 NRC at 194-95; *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), ALAB-952, 33 NRC 521, 530 (1991).

[51] *Turkey Point,* ALAB-952, 33 NRC at 530. *See also Hydro Resources, Inc.* (*HRI*) (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 269 (1998), *rev'd on other grounds,* CLI-98-16, 48 NRC 119 (1998).

[52] 405 U.S. 727.

[53] *Id.* at 739.

[54] *See GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 194 (2000); *Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000).

B. Licensing Board's Ruling on Standing of Petitioners

1. Consolidated Petitioners

a. Individual Petitioners

As discussed *supra,* in cases involving ISL uranium mining and other source materials licensing, a petitioner must demonstrate the requisite elements of standing, i.e., injury, causation, and redressability, because the Commission has held that proximity to the proposed facility alone is not adequate to demonstrate standing.[55] Therefore, the Board must assess the standing claims of the individual Consolidated Petitioners, and each of the two organizations to determine whether the requisite elements for standing to intervene are met.

All of the individual Consolidated Petitioners base their claim of standing on the possibility that contaminants from Powertech's proposed ISL mining operation will contaminate the aquifer or surface waters from which Consolidated Petitioners obtain their water.[56] This is based on conclusions drawn from effects of the ISL mining process itself, which are discussed *supra.*

The Commission has placed the burden on the petitioner to allege a "specific and plausible means" by which contaminants from mining activities may adversely affect him or her;[57] that is to say, each individual Petitioner must show that there is a "specific and plausible means" by which contaminants from Powertech's proposed mine will reach the aquifer or surface waters from which that Petitioner draws water. In *Hydro Resources, Inc.,* the Board held that standing can be granted to a petitioner in a materials licensing case where that petitioner "uses a substantial quantity of water personally or for livestock from a source that is reasonably contiguous to either the injection or processing sites," as such a showing demonstrates a plausible injury-in-fact.[58] Because none of the individuals in this proceeding claims to live on or immediately adjacent to Powertech's

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[55] *See Consumers Energy Co.* (Big Rock Point Independent Spent Fuel Storage Installation), CLI-07-19, 65 NRC 423, 426 (2007); *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998).

[56] The Petition briefly mentions that fish in the region have tested positive for uranium and that other big game might be affected by water contamination from the mine. Petition at 5-6, 18-19. The Petition also states that the area surrounding the mine contains substantial cultural resources. *Id.* at 6. Consolidated Petitioners are not clear whether they intended to base standing on these claims in addition to the claims of water contamination. If so, Consolidated Petitioners fail to establish how they will suffer a direct injury from the fish and wild game, or how the presence of cultural resources will be affected by mining operations. As such, we focus our standing determination on possible ground and surface water contamination as a result of the Dewey-Burdock facility.

[57] *Nuclear Fuel Services, Inc.* (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004) (citing *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000)).

[58] *HRI,* LBP-98-9, 47 NRC at 275.

proposed mining site, the Board must determine whether the individual Petitioners have presented sufficient evidence to establish that a plausible pathway exists through which contaminants could migrate from the proposed mining site to the Petitioners' water sources.[59] In addition, because Consolidated Petitioners live in different locations, take water from different sources, and make different uses of the water, we must look to each Consolidated Petitioner individually to determine whether or not a plausible pathway has been demonstrated.

(1) SUSAN HENDERSON

Ms. Henderson lives in Edgemont, South Dakota, within 20 miles of the proposed Powertech operation.[60] She states in her affidavit that she uses "well water from the Lakota Sandstone [part of Inyan Kara] aquifer for my residence and cattle operation."[61] Ms. Henderson's affidavit further indicates she owns an 8160-acre ranch upon which she operates a substantial cattle business.[62] Neither the Applicant nor the Staff contests that Ms. Henderson uses well water from the Lakota Sandstone, which is a formation in the Inyan Kara, nor do they dispute that this is the same aquifer in which Powertech's ISL mining will occur. Because of the proximity of Ms. Henderson's property to the proposed Powertech operation and her use of well water from the Inyan Kara aquifer and because she lives within 20 miles of the Powertech operation,[63] we conclude that there is a sufficiently plausible hydrologic connection between Ms. Henderson and the Powertech operation to accord her standing. Any potential harm associated with her use of water from the Inyan Kara is fairly traceable to the proposed action.[64]

(2) DAYTON HYDE

Mr. Hyde resides at the Black Hills Wild Horse Sanctuary in Hot Springs, South Dakota, some 16 miles from Powertech's proposed mining operation. The Black Hills Wild Horse Sanctuary consists of several thousand acres of privately owned land as well as another large acreage leased from the Oglala Sioux Tribe. Mr. Hyde represents that he has lived on the Sanctuary property for 22 years and uses water for personal, household, irrigation, ranching, and gardening purposes. The Sanctuary land is protected by a Conservation easement (in favor of The Nature Conservancy), which forbids environmentally harmful activities on the land. The Cheyenne River flows through the Sanctuary and is the primary water source for

[59] *See Crow Butte II,* CLI-09-9, 69 NRC at 345.
[60] Tr. at 387.
[61] Affidavit of Susan Henderson ¶ 4 (Mar. 5, 2010).
[62] *Id.*
[63] Tr. at 387.
[64] *Sequoyah Fuels,* CLI-94-12, 40 NRC at 75.

the wild horses, domestic horses, cattle, and wildlife on the Sanctuary's land. The Sanctuary's 11,000 acres are also watered by five wells in the Inyan Kara aquifer. Mr. Hyde fears that if the water becomes contaminated, the Sanctuary will have no way of watering the horses. The Sanctuary land is downstream from Beaver Creek and Pass Creek; therefore, it could be subject to contamination in the event of any spills, leaks, or excursions. Mr. Hyde states that his water comes from wells in the Inyan Kara aquifer, and that the Cheyenne River is the primary source of water for the horses and wildlife on his land.[65] Because Mr. Hyde' s property is 16 miles downstream from the Applicant's operation[66] and he draws water from wells in the Inyan Kara aquifer, the Board finds Mr. Hyde has demonstrated standing in this proceeding.

(3) DAVID FRANKEL

Mr. Frankel lives in Buffalo Gap, South Dakota, and represents that he uses water from the Inyan Kara aquifer for gardening and irrigation, and tap water from the Madison aquifer for domestic purposes.[67] Mr. Frankel's residence is approximately 50-60 miles to the east of the proposed Dewey-Burdock site,[68] which is three times farther away than either Ms. Henderson or Mr. Hyde. Petitioners Dayton Hyde and Susan Henderson, whose livelihood is dependent upon the land, have shown that they might suffer economic harm as a result of contamination of the aquifer. Because of Mr. Frankel's relative distance from the project and the resultant less potential for harm, his standing claim is somewhat more tenuous. Nonetheless, because he uses water from the Inyan Kara,[69] Mr. Frankel has set forth a scenario by which he would suffer a direct harm and has articulated a plausible connection between his well and the Applicant's proposal. Accordingly, we find that Mr. Frankel has demonstrated his standing.

(4) GARY HECKENLAIBLE, LILIAS C. JONES JARDING, AND THEODORE P. EBERT

Mr. Gary Heckenlaible, Dr. Lilias C. Jones Jarding, and Mr. Theodore P. Ebert all seek standing based on their use and consumption of drinking water from municipal water sources. Mr. Ebert lives in Hot Springs, South Dakota. According to the Petition, Mr. Ebert uses Hot Springs tap water that comes from the Madison aquifer for personal, household, and domestic purposes, including gardening, bathing, and drinking.[70] However, in his affidavit, Mr. Ebert states that,

[65] Affidavit of Dayton Hyde ¶ 8 (Feb. 26, 2010); Petition at 26.
[66] Tr. at 388.
[67] Affidavit of David Frankel ¶ 3 (Mar. 8, 2010); Petition at 24.
[68] Tr. at 61.
[69] Tr. at 62-63.
[70] Petition at 23.

to his knowledge, his water comes from the Oglala aquifer.[71] The record indicates that Hot Springs is 29-40 miles northeast of the proposed Dewey-Burdock site.[72]

Mr. Heckenlaible lives in Rapid City, South Dakota, and uses Rapid City tap water, which comes from the Madison aquifer, for personal, household, and domestic purposes, including gardening, bathing, and drinking.[73] Consolidated Petitioners acknowledge that the distance from the proposed Dewey-Burdock site to Mr. Heckenlaible's property is "pretty far," approximately 70-80 miles.[74]

Dr. Jarding also uses Rapid City tap water, which comes from the Madison aquifer, for personal, household, and domestic uses, including gardening, bathing, and drinking. According to the Petition, "Ms. Jarding is concerned that Applicant will consume 2,243 million gallons of water from the Madison Aquifer which represents a substantial withdrawal from the aquifer upon which she relies. She also notes that her water also comes from the Mennelusa [sic] which is hydrologically connected to the Madison. Ms. Jarding is concerned that a drawdown on the Madison would also lead to a drawdown on the Minnelusa."[75] As noted above in reference to Mr. Heckenlaible, the Consolidated Petitioners acknowledge that the distance from the proposed Dewey-Burdock site to Dr. Jarding's property is "pretty far," approximately 70-80 miles.[76]

As to the demonstration of a plausible chain of connection between mining operations at the Dewey-Burdock site and the source of their drinking water, Petitioners Ebert (in Hot Springs), Heckenlaible, and Jarding (both in Rapid City) fall short of the necessary demonstration to establish their standing. The source of their drinking water is the Madison and/or Minnelusa aquifers, both of which are located more than 2000 feet below the Inyan Kara uranium source aquifer[77] and separated from the Inyan Kara aquifer by several different geologic layers including a confining shale layer of the Morrison Formation.[78] More importantly, their locations are upgradient of the proposed mining area.[79] There is considerable information in the record that the groundwater flow of the aquifers in the Southwestern Black Hills region is toward the southwest.[80] There was a

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[71] Affidavit of Theodore Ebert ¶ 3 (Mar. 5, 2010).

[72] Tr. at 104.

[73] Petition at 24.

[74] Tr. at 65.

[75] Petition at 26-27.

[76] Tr. at 65.

[77] Environmental Report at 3-8, Figure 3.3-2 (ADAMS Accession No. ML092870360), Plate 3.3-5 (ADAMS Accession No. ML092870386).

[78] *Id.*

[79] Staff Answer to Petition at 8, 9.

[80] *Id. See also* Technical Report at 2-10 (ADAMS Accession No. ML092870298), 2-160 to 2-161 (ADAMS Accession No. ML092870295); Tr. at 40.

discussion at the prehearing conference of the possibility of some easterly flow in the southern part of the Black Hills area,[81] but there is no indication that any of the groundwater flow in the Inyan Kara, the Minnelusa, or the Madison aquifers would flow in a north or northeast direction toward Rapid City or even northeast toward Hot Springs. Because Petitioners Ebert, Heckenlaible, and Jarding all use groundwater considerably upgradient of the mining area and fail to explain how contaminated material from the Dewey-Burdock site might plausibly enter their drinking water, they fail to demonstrate they fulfill the causation element necessary to establish their standing.

In sum, we find that three of the Consolidated Petitioners — Ms. Henderson, Mr. Hyde, and Mr. Frankel — have alleged a plausible connection between the source of their water (the Inyan Kara) and the proposed Powertech operation sufficient to establish the possibility that they could be harmed by Powertech's mining operations. Though we acknowledge that the possibility of their groundwater being harmed by the ISL mining might be remote or tenuous, we cannot conclude at this early stage of the proceeding that there is no reasonable possibility that such harm could occur.[82] A Board's standing analysis must "avoid 'the familiar trap of confusing the standing determination with the assessment of a petitioner's case on the merits.'"[83] Petitioners are not required to demonstrate their asserted injury with certainty at this stage, nor to "provide extensive technical studies" in support of their standing argument.[84] Such determinations are reserved for adjudication of the merits. A determination that "the injury is fairly traceable to the [challenged] action . . . [does] not depend[ ] on whether the cause of the injury flows directly from the challenged action, but *whether the chain of causation is plausible.*"[85]

Conversely, the Board finds that Petitioners Heckenlaible, Jarding, and Ebert, who base their standing claims on use of municipal tap water in Rapid City, South Dakota (or in the case of Mr. Ebert, Hot Springs, South Dakota), have not alleged a plausible pathway by which they could be harmed. Dr. Jarding and Mr. Heckenlaible live in excess of 70 miles from the project site, and none of these three Petitioners have shown a plausible pathway connecting the proposed Powertech operations in the Inyan Kara to the sources of their water, which are

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[81] Tr. at 62-63, 70-71, 74.

[82] *Crow Butte Resources, Inc.* (*Crow Butte I*) (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 280 (2008). *See also Sequoyah Fuels,* CLI-94-12, 40 NRC at 74 ("[W]e conclude that [petitioner] is not required to go further at this threshold stage to establish injury in fact.").

[83] *HRI,* LBP-98-9, 47 NRC at 272 (citing *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54 (1994)).

[84] *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 31 (1999) (citing *Sequoyah Fuels,* CLI-94-12, 40 NRC at 72).

[85] *Sequoyah Fuels,* CLI-94-12, 40 NRC at 75 (emphasis added). *See also id.* at 74 ("It is enough that [petitioner] has demonstrated a realistic threat . . . of sustaining a direct injury as a result of contaminated groundwater flowing from the [site] to his property.").

the Madison and/or Minnelusa aquifers. The Madison and Minnelusa aquifers are too distant and their connection to the Inyan Kara is far too uncertain to establish the plausible pathway necessary to achieve standing in this proceeding.

For the reasons set forth above, we find that only Consolidated Petitioners Susan Henderson, David Frankel, and Dayton Hyde have demonstrated standing to intervene in this proceeding.

b. Clean Water Alliance (CWA) and Aligning for Responsible Mining (ARM)

The organizational entities among the Consolidated Petitioners are Aligning for Responsible Mining (ARM) and the Clean Water Alliance (CWA).[86] As previously noted, when an organization requests a hearing, the organization may seek to establish standing either on its own behalf or on behalf of one or more of its members.[87] At oral argument, counsel for ARM stated that it seeks only representational standing in this proceeding.[88] We find that neither the CWA nor ARM has demonstrated organizational standing in this proceeding. However, both CWA and ARM have met the standard for representational standing.

As discussed at length *supra,* an organization must, in order to obtain standing, demonstrate an effect upon its organizational interests or show "that at least one of its members would suffer injury as a result of the challenged action, sufficient to confer upon it . . . 'representational' standing."[89] At oral argument, counsel for CWA stated that the organization sought both organizational and representational standing in this proceeding.[90] In the Petition and supporting affidavits, CWA does not allege a discrete injury to its organizational interests as is required by *Sierra Club v. Morton.*[91] CWA states only a generalized interest in protecting "the natural resources of the Black Hills of South Dakota with a focus on groundwater contamination from uranium mining."[92] That being so, we cannot find that CWA has established that, as an organization, it is suffering, or will suffer, from a specific, concrete harm caused by Powertech's mining operations.

Regarding the adequacy of the CWA and ARM showings to establish representational standing, as we noted earlier, an organization seeking to establish representational standing must show that at least one of its members may be

[86] Petition at 27.

[87] *Entergy Nuclear Operations, Inc.* (Big Rock Point Plant), CLI-08-19, 68 NRC 251, 258-59, 266 (2008).

[88] Tr. at 103.

[89] *HRI,* LBP-98-9, 47 NRC at 271 (internal citations omitted).

[90] Tr. at 99.

[91] 405 U.S. at 727.

[92] Petition at 27.

affected by the proceeding.[93] The organization must identify that member, and it must show that the member has authorized the organization to represent him or her and request a hearing on his or her behalf.[94] In this proceeding, as the Board has found, Mr. Frankel has established standing. Mr. Frankel has also authorized ARM to represent his interests in this proceeding.[95] Thus, ARM may participate in a representational standing capacity. Similarly, the Board has granted standing to Ms. Henderson and she has authorized CWA to represent her in this proceeding;[96] thus, CWA may participate because it has representational standing.[97]

We note, however, that an individual petitioner may not request to intervene in his or her own right while simultaneously authorizing other petitioners to represent his or her interests in the proceeding. The Commission has stated that such multiple representation might lead to confusion as to whether the individual or the organization was speaking for the petitioner.[98] Therefore, the Board directs Mr. Frankel and Ms. Henderson to elect whether they wish to proceed as individual parties to this proceeding or to have their interests represented by ARM and/or CWA. Such election must be made within ten (10) days of the issuance of this Order and served on all parties and the Board.

2. The Oglala Sioux Tribe

The Oglala Sioux Tribe is a federally recognized Indian tribe[99] and may therefore seek to participate in this proceeding as provided in 10 C.F.R. § 2.309(d)(2). However, because the proposed Powertech facility will not be located within the Tribe's boundaries, the Tribe must meet the standing requirements imposed by 10 C.F.R. § 2.309(d)(1) by showing "a concrete and particularized injury that

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[93] *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 408-09 (2007); *Vermont Yankee,* CLI-00-20, 52 NRC at 163.

[94] *Palisades,* CLI-07-18, 65 NRC at 409; *Vermont Yankee,* CLI-00-20, 52 NRC at 163.

[95] Affidavit of David Frankel, Legal Director of Aligning for Responsible Mining ¶ 2 (Mar. 8, 2010).

[96] Affidavit of Susan Henderson ¶ 2 (Mar. 5, 2010).

[97] Although the Board has not granted personal standing to Mr. Ebert, Dr. Jones Jarding, and Mr. Heckenliable, we note that they are members of ARM or CWA and therefore their interests will be represented by these entities at the hearing to be held in this proceeding.

[98] *Big Rock,* CLI-07-19, 65 NRC at 426 (citing *Northern States Power Co.* (Pathfinder Atomic Plant), LBP-89-30, 30 NRC 311, 316 (1989) ("[A petitioner] can have her interest protected by participating as an individual or by having [an organization] represent her interest. It would be detrimental to the process to have a person appear in the proceeding individually and to be represented by an organization. . . .")).

[99] Indian Entities Recognized and Eligible to Receive Services from the United States Bureau of Indian Affairs, 73 Fed. Reg. 18,553, 18,555 (Apr. 4, 2008).

is . . . fairly traceable to the challenged action and [is] likely to be redressed by a favorable decision."[100]

The Tribe's central standing claim is its interest in protecting cultural and historical resources that have been or might be found on the Powertech site, which the Tribe claims is within the aboriginal territory of the Oglala Sioux Tribe under the 1868 Fort Laramie Treaty.[101] The Commission found in *Crow Butte II* that the Oglala Sioux Tribe has "a current, concrete interest in protecting the artifacts on the site"[102] and accordingly had standing to intervene. The Tribe makes the same claims in the present proceeding and supports its claims with affidavits from Wilmer Mesteth,[103] the Oglala Sioux Tribal Historic Preservation Officer, and Denise Mesteth,[104] Director of the Oglala Sioux Tribal Land Office. The Tribe also claims a procedural interest under section 106 of the NHPA[105] in "identifying, evaluating, and establishing protections for historic and cultural resources."[106] The Tribe additionally bases its claim of standing on possible groundwater contamination from the proposed Dewey-Burdock project.[107]

Powertech opposes the Tribe's claims of standing on the ground that there is not a plausible pathway "through which contaminants from the proposed Dewey-Burdock ISL site potentially could reach areas where [the Tribe] could suffer some concrete, particularized injury-in-fact."[108] Further, Powertech claims that the Tribe has failed to demonstrate a concrete injury-in-fact with regard to the cultural and historic resources found or yet to be identified on the Dewey-Burdock site.[109] Based on the Commission's ruling in *Crow Butte II, supra,* the NRC Staff does not oppose the Tribe's standing "to the extent it is based on potential harm to cultural artifacts that may yet be found at the Dewey-Burdock site."[110]

The preservation of Native American cultural traditions is a protected interest under federal law.[111] If this interest is endangered or harmed, it qualifies as a

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[100] *See, e.g., Yankee Atomic,* CLI-98-21, 48 NRC at 195; *Georgia Tech,* CLI-95-12, 42 NRC at 115; *Perry,* CLI-93-21, 38 NRC at 92 (citing *Lujan,* 504 U.S. at 561).

[101] Tribe Petition at 8-9.

[102] CLI-09-9, 69 NRC at 338.

[103] *See* Affidavit of Wilmer Mesteth (Apr. 1, 2010).

[104] *See* Affidavit of Denise Mesteth (Apr. 1, 2010).

[105] 16 U.S.C. § 470f.

[106] Tribe Petition at 9.

[107] *Id.* at 11.

[108] Powertech Answer to Tribe at 28.

[109] *Id.* at 29.

[110] Staff Answer to Tribe at 12.

[111] *See Havasupai Tribe v. United States,* 752 F. Supp. 1471 (D. Ariz. 1990); *United States ex rel. Chunie v. Ringrose,* 788 F.2d 638 (9th Cir. 1986); *United States v. Pend Oreille County Public Utility District No. 1,* 585 F. Supp. 606 (D. Wash. 1984); *Ute Indians v. United States,* 28 Fed.

(Continued)

cognizable injury for AEA standing purposes under *Crow Butte II.*[112] In the case before us, the Powertech mining site is within the boundaries of the 1868 Fort Laramie Treaty and was occupied by the Lakota people. Moreover, the Tribe ascribes cultural and religious significance to this land and represents that it is likely that artifacts are to be found there.[113] In fact, Powertech has identified a small number of sites in the mining area that it states are eligible for inclusion in the National Register of Historic Places and many more sites that remain unevaluated.[114]

In the NHPA, Congress declared that this Nation's historical heritage "is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans."[115] Section 106 of the Act, *inter alia,* requires a federal agency, prior to the issuance of any license, to "take into account" the effect of the federal action on any area eligible for inclusion in the National Register of Historic Places.[116]

Detailed regulations, developed to give substance to the requirements of section 106, provide a complex consultative process that federal agencies must follow to comply with the NHPA.[117] As part of this process, a tribe may become a consulting party if its property, potentially affected by a federal undertaking, has religious or cultural significance.[118] A consulting tribe is entitled to a reasonable opportunity to identify its concerns about historic properties, to advise on the identification and evaluation of historic properties (including those of traditional religious and cultural importance), to articulate its views on the undertaking's effects on such

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Cl. 768 (1993). *See also* Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. §§ 3001-13 (1990) (providing notification and inventory procedures so that Indian cultural objects and burial remains found on federal lands will be repatriated to the appropriate Tribe); National Historic Preservation Act (NHPA), 16 U.S.C. § 470 to 470x-6 (providing notification and consultation procedures federal agencies must follow prior to a federal "undertaking" to consider the undertaking's effect on historic properties); Archaeological Resources Protection Act (ARPA), 16 U.S.C. § 470aa-470mm (providing criteria and procedures pursuant to which a federal land manager may issue excavation permits for federal lands; and providing for notification to Indian Tribe if permits may result in harm to cultural or religious sites).

[112] *But see Crow Creek Sioux Tribe v. Brownlee,* 331 F.3d 912, 916 (D.C. Cir. 2003) ("Tribe does not have standing merely because it has statutory rights in burial remains and cultural artifacts. Rather, to establish standing, the Tribe must show . . . some actual or imminent injury.").

[113] Tribe Petition at 9.

[114] *Id.*

[115] 16 U.S.C. § 470(b)(4).

[116] *Id.* § 470f; *see also id.* § 470a(a) (National Register Guidelines).

[117] 36 C.F.R. Part 800; *see* Advisory Council on Historic Preservation, 65 Fed. Reg. 77,698 (Dec. 12, 2000).

[118] *See* 36 C.F.R. § 800.2(c)(2)(ii).

properties, and to participate in the resolution of adverse effects.[119] Moreover, the regulations under NHPA provide that the federal agency "should be sensitive to the special concerns of Indian tribes in historic preservation issues, which often extend beyond Indian lands to other historic properties," and should "invite the governing body of the responsible tribe to be a consulting party and to concur in any agreement."[120]

In short, section 106 of the NHPA provides the Tribe with a procedural right to protect its interests in cultural resources. The Supreme Court has held that a party claiming violations of this procedural right is to be accorded a special status when it comes to standing: "The 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."[121] To establish an injury-in-fact, a party merely has to show "some threatened concrete interest personal" to the party that NHPA was designed to protect.[122] Here, the Tribe's concrete interest is clear: there are cultural resources on the Powertech site that have not been properly identified and may be harmed as a result of mining activities. Without consultation with the Tribe, culturally significant resources will go unidentified and unprotected. As a result, development or use of the land might cause damage to these cultural resources, thereby injuring the protected interests of the Tribe.

Federal law not only recognizes that Native American tribes have a protected interest in cultural resources found on their aboriginal land, but as well has imposed on federal agencies a consultation requirement under the NHPA to ensure the protection of tribal interests in cultural resources. The Tribe's threatened injury is therefore within the zone of interests protected by the NHPA. The Tribe thus is accorded standing here.[123]

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[119] *See id.* § 800.2(c)(2)(ii)(A).

[120] *See id.* § 800.1(c)(2)(iii).

[121] *Lujan,* 504 U.S. at 572 n.7.

[122] *Nulankeyutmonen Nkihtaqmikon v. Impson,* 503 F.3d 18 (1st Cir. 2007) (citing *Lujan,* 504 U.S. at 572-73 nn.7-8).

[123] The cases that have addressed procedural violations of the NHPA have uniformly granted standing to tribes under this relaxed standard and have proceeded directly to the merits of the NHPA claim. *See, e.g., Naragansett Indian Tribe v. Warwick Sewer Authority,* 334 F.3d 161 (1st Cir. 2003); *Muckleshoot Indian Tribe v. United States Forest Service,* 177 F.3d 800 (9th Cir. 1999); *Snoqualmie Indian Tribe v. Federal Energy Regulatory Commission,* 45 F.3d 1207 (9th Cir. 2008). *See also Duncan's Point Lot Owners Ass'n, Inc. v. Federal Energy Regulatory Commission,* 522 F.3d 371 (D.D.C. 2008).

V. CONTENTIONS PROPOSED BY CONSOLIDATED PETITIONERS AND THE OGLALA SIOUX TRIBE

A. Standards for Admissibility of Contentions

In order to participate as a party in a proceeding before the Board, a petitioner 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).[124] 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.[125]

The purpose of these section 2.309(f)(1) requirements is to "focus litigation on concrete issues and result in a clearer and more focused record for decision."[126] The Commission has stated that "the hearing process [is intended only for] issues that are 'appropriate for, and susceptible to, resolution in an NRC hearing.'"[127] Furthermore, "[w]hile a board may view a petitioner's supporting information in a light favorable to the petitioner . . . the petitioner (not the board) [is required] to supply all of the required elements for a valid intervention petition."[128] The rules on contention admissibility are "strict by design."[129] Further, absent a waiver, contentions challenging applicable statutory requirements or Commission

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[124] *See* 10 C.F.R. § 2.309(a).

[125] *Id.* § 2.309(f)(1).

[126] Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2202 (Jan. 14, 2004).

[127] *Id.*

[128] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009).

[129] *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).

regulations are not admissible in agency adjudications.[130] Failure to comply with any of these requirements is grounds for not admitting a contention.[131]

Several of the contentions we address below are alleged to be contentions of omission. 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."[132] 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.[133]

Section 2.309(f)(1)(v) requires the petitioner to provide a concise statement of the alleged 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 legally required missing information."[134] 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 only that the application is incomplete. If an applicant cures the omission, the contention will become moot.[135]

Finally, if the contention makes a *prima facie* allegation 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"[136] in accordance with section 2.309(f)(1)(iv).

B. Board Rulings on Consolidated Petitioners' Proposed Contentions

1. Consolidated Petitioners' Contentions A and B

Consolidated Petitioners state in Contention A:

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[130] 10 C.F.R. § 2.335(a).

[131] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 636 (2004).

[132] 10 C.F.R. § 2.309(f)(1)(vi).

[133] *Id.* § 2.309(f)(1)(iii).

[134] *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)).

[135] *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).

[136] *Pa'ina,* LBP-06-12, 63 NRC at 414.

> The 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 Cheyenne River.[137]

Consolidated Petitioners provide no further explanation or information supporting this contention in their Petition or their Reply. A petitioner, especially one represented by counsel, bears the burden of going forward and specifically addressing each of the six elements in 10 C.F.R. § 2.309(f)(1) for each contention proffered.[138] A single sentence labeled a contention, with no reference to the six elements of section 2.309(f)(1) does not an admissible contention make.

Both Powertech and the NRC Staff oppose admission of Contention A. Powertech argues that Consolidated Petitioners fail to point to any specific portions of the Application that they claim are inaccurate and fail to provide support for their claim that water resources will be affected.[139] Thus, Powertech argues that Contention A should be denied because it fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

The NRC Staff also asserts that Contention A fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi). NRC Staff argues that Consolidated Petitioners fail to identify the portion or portions of Powertech's Application that are deficient, and fail to support their claims that contaminated groundwater could infiltrate surface water with facts or expert opinion.[140]

Consolidated Petitioners state in Contention B:

> Applicant's proposed 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 Cheyenne River.[141]

Consolidated Petitioners provide no further explanation or information supporting this contention in their Petition or their Reply.

Both Powertech and the NRC Staff oppose admission of Contention B. Powertech argues that, like Contention A, Consolidated Petitioners fail to identify the portion or portions of Powertech's Application that are inaccurate or deficient,

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[137] Petition at 34.

[138] *See supra* Section V.A.

[139] Powertech Answer to Petition at 47.

[140] Staff Answer to Petition at 19.

[141] Petition at 34.

in contravention of 10 C.F.R. § 2.309(f)(1)(vi).[142] Furthermore, Powertech states that Consolidated Petitioners fail to identify the specific water resources that may be affected by intermixing and the means by which contaminants may be introduced into the Cheyenne River.[143] Powertech argues that because Consolidated Petitioners do not plead Contention B with the requisite specificity, and because they provide no facts or expert opinion to support their claims,[144] Contention B is inadmissible.

The NRC Staff argues that Contention B should be denied because Consolidated Petitioners fail to provide facts or expert opinions to explain which hydrologic mechanisms could result in groundwater contamination and how this contamination could possibly occur.[145] The Staff also claims that Consolidated Petitioners do not demonstrate a genuine dispute with Powertech's Application.[146] Because Consolidated Petitioners have not met the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi), the Staff argues that Contention B is inadmissible.

Contentions A and B are exactly the same as Environmental Contentions A and B proffered by Consolidated Petitioners in the *Crow Butte* License Renewal proceeding (*Crow Butte II*).[147] In the *Crow Butte* License Amendment proceeding (*Crow Butte I*), Consolidated Petitioners submitted similar contentions, and these contentions were reformulated by the Board in that case. Consolidated Petitioners have used the contentions, as reworded by the Board in *Crow Butte I,* in *Crow Butte II,* and in the present proceeding. We note that, although the Board in *Crow Butte I* admitted Contentions A and B as reformulated,[148] the Commission found that the Board abused its discretion, overturned the Board's decision, and rejected Contentions A and B as reformulated.[149]

In *Crow Butte II,* Consolidated Petitioners proffered the exact same contentions as reformulated by the Board in *Crow Butte I,* but failed to provide the extensive support, allegations, and arguments provided in their *Crow Butte I* pleading, opting instead to incorporate their arguments in *Crow Butte I* into their *Crow Butte II* pleading.[150] The Board in *Crow Butte II* found the practice of "incorporating by reference" contrary to Commission case law and subsequently denied both

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[142] Powertech Answer to Petition at 48.

[143] *Id.*

[144] 10 C.F.R. § 2.309(f)(1)(v).

[145] Staff Answer to Petition at 21.

[146] *Id.*

[147] *Crow Butte Resources, Inc.* (*Crow Butte II*) (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 729 (2008).

[148] LBP-08-6, 67 NRC at 318-23.

[149] *Crow Butte I,* CLI-09-12, 69 NRC 535, 573 (2009).

[150] LBP-08-24, 68 NRC at 730.

Contention A and Contention B based on the dearth of information given in that proceeding.[151]

In this proceeding, as in *Crow Butte II,* Consolidated Petitioners fail to provide the extensive support for Contentions A and B that was provided, and found to be admissible, by the Board in *Crow Butte I.* At oral argument, counsel for Consolidated Petitioners urged the Board to find support for Contentions A and B elsewhere in the Petition, namely in the introductory material.[152] Commission case law supports the conclusion that it is not the Board's duty to forage through a petition in order to find statements or other support that may be located in various portions of the petition but not referenced in the contention.[153] A properly pled contention needs to lay out explicitly the required criteria of 10 C.F.R. § 2.309(f)(1)(i)-(vi) in order to be admissible;[154] a licensing board cannot be expected to go on a veritable scavenger hunt to find the missing pieces needed for an admissible contention. Indeed, the 2004 changes to NRC regulations require potential intervenors to plead contentions with specificity, as opposed to the then-current practice of merely describing "areas of concern," in order to ensure that the licensing board is not "burdened with the need to sift through the record to identify the basic issues and pertinent evidence necessary for a decision."[155] If this Board were to comply with Consolidated Petitioners' request that we scour the entirety of the submitted information in order to piece together an admissible contention for them, the Board would be acting in contravention of the spirit of the regulations and Commission precedent. We decline to do that here.

As it stands in this proceeding, the Board finds itself presented with two contentions that, as pled, do not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). We agree with the Board in *Crow Butte II* that Contentions A and B do not contain sufficient explanation of the basis or bases for these contentions, do not provide alleged facts or expert opinions to support Consolidated Petitioners' position, and fail to raise a genuine dispute with

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[151] *Id.*

[152] Tr. at 288-96.

[153] *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-89-3, 29 NRC 234, 240-41 (1989) ("The Commission expects parties to bear their burden and to clearly identify the matters on which they intend to rely with reference to a specific point. The Commission cannot be faulted for not having searched for a needle that may be in a haystack."). *See also Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), LBP-93-21, 38 NRC 143, 146 (1993) ("[I]t is a settled rule of practice at this Commission that contentions ought to be interpreted in light of the required specificity, so that adjudicators and parties need not search out broader meanings than were clearly intended"); *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), LBP-04-15, 60 NRC 81, 89 & n.26 (2004).

[154] 69 Fed. Reg. at 2221.

[155] *Id.* at 2202.

Powertech's Application. Accordingly, the Board concludes that Contention A and Contention B are inadmissible.

2. Consolidated Petitioners' Contention C

Consolidated Petitioners state in Contention C:

> Cost Benefits as discussed in the Application fail to include economic value of environmental benefits.[156]

Consolidated Petitioners read 10 C.F.R. § 51.45(c)[157] to require that Powertech's Application include a discussion of the economic value of the water to be taken from the Inyan Kara and Madison Aquifers and how the resulting "aquifer drawdown" will affect property values in the area.[158] Consolidated Petitioners assert that NRC regulations require a discussion of the economic value of environmental benefits be provided in the Application, and that Powertech's failure to include such a discussion renders the Application deficient.[159]

Both Powertech and the NRC Staff oppose admission of Contention C. Powertech claims that Contention C is inadmissible because it fails to meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).[160] First, Powertech argues that its Application does include an assessment of the potential impacts of the Dewey-Burdock facility on wetlands, which Consolidated Petitioners do not dispute.[161] Second, Powertech asserts that 10 C.F.R. Part 51 does not require that it "quantify the positive economic value of environmental benefits; but rather, it requires a 'hard look' at potential positive and negative impacts of a proposal."[162] Therefore, Powertech claims that it has not omitted requisite information from its Application. Finally, Powertech takes issue with one study Consolidated Petitioners cite to support Contention C. Powertech argues that the study, which references wetlands in Australia, is irrelevant to this proceeding and that Consolidated Petitioners fail to draw a correlation between the other studies

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[156] Petition at 35.

[157] Section 51.45(c) discusses the general requirements of environmental reports. Specifically it states, *inter alia,* "The environmental report must include an 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."

[158] *Id.*

[159] *Id.*

[160] Powertech Answer to Petition at 48-50.

[161] *Id.* at 49.

[162] *Id.* (citations omitted).

they cited and the possible impacts that the proposed Dewey-Burdock facility might have on wetlands in the area.[163]

The NRC Staff supports Powertech's assertion that a discussion of water consumption is included in Powertech's Application and that Consolidated Petitioners fail to dispute the Application's analyses.[164] The NRC Staff further states that Consolidated Petitioners have failed to provide support for their claim that the Dewey-Burdock project will cause negative impacts to water resources and that Consolidated Petitioners fail to dispute the analyses of impacts to water resources that are included in Powertech's Application.[165] Therefore, the NRC Staff opposes the admission of Contention C because it fails to meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

We determine that Contention C is inadmissible because Consolidated Petitioners have failed to provide the Board with sufficient information to support a contention that the drawdown of the Madison and Inyan Kara aquifers from mining operations would have a detrimental effect on Petitioners' property values or on wetlands in the area. A similar contention was filed in *Crow Butte II* and was rejected by the Commission as lacking support for the premise that ongoing mining operations will drain or contaminate wetlands, such that their economic benefits will be decreased.[166] Though counsel for Consolidated Petitioners states that the defect in the *Crow Butte II* contention has been cured here,[167] we do not agree. Consolidated Petitioners have provided no support for the assertion that drawdown in the mined aquifers will be significant enough to cause an economic injury to Petitioners. While the study cited by Consolidated Petitioners in the Petition does support the assertion that drawdown *generally* affects the economic benefits of wetlands,[168] Consolidated Petitioners have not provided support to demonstrate that a genuine dispute exists regarding the impact of water drawdown from the proposed Dewey-Burdock operation. Accordingly, Consolidated Petitioners have failed to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi), and this contention must be *denied.*

3. Consolidated Petitioners' Contention D

Consolidated Petitioners state in Contention D:

> Section 51.43(e) requires disclosure of adverse information. Section 40.9 requires

[163] *Id.* at 48, 50.
[164] Staff Answer to Petition at 22-23.
[165] *Id.* at 22.
[166] CLI-09-9, 69 NRC at 356.
[167] Tr. at 315.
[168] *See* Petition at 35.

> disclosure of all material facts and that the Application be complete. As described in the LaGarry Opinion and the Moran Opinion, the Application fails to disclose all required information in a comprehensible manner.[169]

Consolidated Petitioners contend that Powertech's Application violates 10 C.F.R. § 40.9 because it is disorganized and fails to relay important technical information in a comprehensible manner.[170] Consolidated Petitioners rely upon the opinion of Dr. Robert E. Moran,[171] who states that the information in the Application is presented in a confused, "technically inadequate manner" and thus lacks a "statistically-sound data set for *all* Baseline Water Quality . . . as is required in NUREG-1569" that is easy to identify and interpret.[172] Similarly, Consolidated Petitioners offer the opinion of Dr. Hannan E. LaGarry,[173] who claims that Powertech's Application violates 10 C.F.R. § 51.45 and Criterion 5B of Appendix A to Part 40 "by failing to adequately describe confinement of the host aquifer . . . to analyze properly secondary porosity in the form of faults and joints, artesian flow, and horizontal flow of water within the uranium-bearing strata."[174] In sum, Consolidated Petitioners are alleging that Powertech's Application "fails to disclose material information in a comprehensible manner."[175]

Both Powertech and the NRC Staff oppose admission of Contention D. Powertech states that Consolidated Petitioners misread 10 C.F.R. §§ 40.9 and 51.45 and therefore fail to raise a genuine dispute with the Application as required by 10 C.F.R. § 2.309(f)(1)(vi).[176] First, Powertech argues that 10 C.F.R. § 40.9 does not impose an organizational requirement on applicants, and that Consolidated Petitioners' claim that the Application is in violation of section 40.9 because it is presented in an incomprehensible manner is unfounded.[177] Secondly, Powertech asserts that Consolidated Petitioners misread section 51.45 by alleging that Powertech has omitted material information from its Application.[178] Powertech reads section 51.45 as providing "parameters for information that should be submitted in an environmental report but do[es] not prescribe any sort of 'technical ade-

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[169] *Id.* at 34-35.

[170] *Id.* at 36.

[171] Dr. Robert E. Moran is a hydrologist/geochemist who has over 38 years of domestic and international experience in conducting and managing water quality, geochemical and hydrogeologic work. Declaration of Robert E. Moran at 1.

[172] *Id.* at 36-37 (emphasis in original).

[173] Dr. Hannan E. LaGarry is a geologist who has taught at Ft. Hayes State University, University of Nebraska, Chadron State College, and Oglala Lakota College. Declaration of Hannan LaGarry at 1-2.

[174] *Id.* at 38.

[175] *Id.* at 36.

[176] Powertech Answer to Petition at 50.

[177] *Id.*

[178] *Id.* at 51.

quacy' requirement."[179] Further, Powertech asserts that Consolidated Petitioners misread Criterion 5B of Appendix A to Part 40 as pertaining to ISL facilities.[180] Powertech argues that this section applies only to conventional uranium mills, and is therefore not applicable to the Dewey-Burdock Application. However, Powertech does concede that portions of Appendix A have recently been applied to ISL facilities by the Commission as a matter of policy.[181] According to Powertech, therefore, Consolidated Petitioners have failed to meet the requirements of 10 C.F.R. § 2.309(f)(1)(vi) because they do not identify an omission from the Application, as is required by law.

Like Powertech, the NRC Staff argues that 10 C.F.R. § 40.9 does not impose any requirement that applicants organize their submissions in any specific manner.[182] The Staff further argues that the Application is not in fact disorganized, and that Consolidated Petitioners fail to support their claim that it is.[183] Additionally, the Staff contends that the Application does not need to include additional information on baseline water quality, as Dr. Moran asserts in the Petition.[184] Dr. Moran claims that this requirement can be found in NUREG-1569, to which the Staff responds that NUREGs are only guidance and do not have the same force and effect as NRC regulations.[185] Furthermore, the Staff argues that Consolidated Petitioners have not provided any support or expert opinion that supports their assertion that the baseline water quality data in the Application is deficient and that additional information is required.[186] Finally, the NRC Staff disputes Consolidated Petitioners' argument that the Application violates Criterion 5B of Appendix A to Part 40 by arguing that Consolidated Petitioners have not demonstrated that the alleged omissions regarding aquifer confinement and water flow are material to the findings the NRC must make, have failed to provide alleged facts or expert opinion to support their claim, and have failed to raise a genuine dispute with Powertech's Application, all in contravention of 10 C.F.R. § 2.309(f)(1)(iv), (v), and (vi).

The Board concludes that Consolidated Petitioners' Contention D is inadmissible insofar as it challenges the organization and clarity of Powertech's Application. We do not believe that Consolidated Petitioners have shown Powertech's Application to be so incomprehensible as to be useless to the public. Furthermore, issues of disorganization in an application cannot be said to be

[179] *Id.* at 51-52.
[180] *Id.* at 52.
[181] *Id.*
[182] Staff Answer to Petition at 26.
[183] *Id.*
[184] *Id.* at 27.
[185] *Id.*
[186] *Id.* at 28.

germane to the licensing process. According to the Board in *HRI,* "[a]ny area of concern is germane if it is relevant to whether the license should be denied or conditioned."[187] The organization or format of an application was not considered by that Board to be germane because the objection to the application's organization was not an objection to the licensing action at issue in the proceeding.[188]

With regard to the portions of Contention D that challenge the technical adequacy of baseline water quality data and adequate confinement of the host aquifer, the Board determines that these portions are admissible under 10 C.F.R. § 2.309(f)(1). Consolidated Petitioners offer the expert opinion of Dr. Hannan LaGarry, who opines that conclusions regarding baseline water conditions have been biased by Powertech's technical presentation of the data in the Application.[189] Dr. LaGarry also identifies portions of the Application that deal with artesian and horizontal flow in the host aquifer, and concludes that analyses of how such flow could impact surrounding aquifers and surface waters is lacking in Powertech's Application.[190]

Consolidated Petitioners identify an issue that is within the scope of this proceeding and material to the findings the NRC must make in evaluating Powertech's Application as required by 10 C.F.R § 2.309(f)(1)(iii) and (iv). Further, Consolidated Petitioners raise a genuine dispute with Powertech's Application, namely that Powertech's presentation of baseline water quality data is biased and its analyses of aquifer confinement are inadequate. Consolidated Petitioners provide the expert opinion of Dr. LaGarry to support their assertions. Whether Consolidated Petitioners are correct in their assertions is not a matter the Board can resolve at this stage in the proceeding; such a finding is reserved for a merits determination after hearing. We therefore conclude that Consolidated Petitioners have met the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) and admit the portions of Contention D that challenge the technical adequacy of baseline water quality data and adequate confinement of the host aquifer.

Contention D is therefore *admitted* as follows:[191]

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[187] LBP-98-9, 47 NRC at 280.

[188] *Id.*

[189] Petition at 37.

[190] *Id.* at 38-39.

[191] *Crow Butte I,* CLI-09-12, 69 NRC at 552-53 (citing *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 (2004); *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 271, 276 (2004).

> Powertech's presentation and analysis of baseline water quality data in its Application are inadequate. Further, Powertech's analysis of aquifer confinement fails to include an analysis of how artesian and horizontal flow could impact surrounding aquifers and surface waters.

4. Consolidated Petitioners' Contentions E and J

Consolidated Petitioners state in Contention E:

> The License may not be granted because it would violate Section 40.32(d) because of lack of adequate confinement of the host Inyan Kara aquifer, the proposed operation would be inimical to public health and safety in violation of the AEA and NRC . . . .[192]

Consolidated Petitioners argue that the upper confining layers of the Inyan Kara aquifer are thin and that there are breaches in these layers due to joints, faults, and perforations made by wells.[193] According to Consolidated Petitioners, this lack of confinement can potentially enable lixiviant from mining activities to leak into drinking water supplies or into groundwater.[194] Consolidated Petitioners assert that, due to these circumstances, and the fact that little is known regarding the area's hydrology and the interconnection between aquifers, the public health and safety would be at risk should the license be issued to Powertech.[195] Consolidated Petitioners support their argument with an opinion to that effect from Dr. Hannan LaGarry.[196]

Both Powertech and the NRC Staff oppose admission of Contention E. Powertech argues that Consolidated Petitioners point to no regulation in Part 40 that requires ISL processes to be conducted in a confined geologic area.[197] Further, Powertech asserts that the Application does in fact address issues regarding confinement in the Inyan Kara aquifer in some detail in sections 3.3.2.2, 3.4.3.1.2, and 3.4.3.2.[198] In attempting to refute Consolidated Petitioners' claim that exploratory wells pose adverse public health and safety risks, Powertech argues that all wells are properly plugged within the project area.[199] Moreover, Powertech asserts that Consolidated Petitioners' claim is not based on any expert opinion

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[192] Petition at 39.
[193] *Id.* at 40.
[194] *Id.* at 39.
[195] *Id.*
[196] *Id.*
[197] Powertech Answer to Petition at 53.
[198] *Id.* at 54.
[199] *Id.*

or documentation.[200] In sum, Powertech opposes the admission of Consolidated Petitioners' Contention E because it is based on "unfounded conjecture" and fails to meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

The NRC Staff argues that Contention E is a reiteration of Contentions A, B, and D and is inadmissible for the same reasons.[201] First, the NRC Staff asserts that Consolidated Petitioners fail to explain why their concerns would make issuing a license to Powertech inimical to public health and safety because they do not point to any regulations, beyond 10 C.F.R. § 40.32(d), that the Application allegedly violates.[202] Secondly, the NRC Staff claims that the issues raised by Dr. LaGarry in Contention E are not material to the findings the NRC must make in this proceeding.[203] Finally, the NRC Staff argues that, as with Contention D, Consolidated Petitioners fail to dispute sections of the Application where Powertech addresses the likelihood of excursions and argue only that additional analyses are needed in the Application.[204] In sum, the NRC Staff claims that Contention E is inadmissible because it does not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(iv) and (vi).

The Board determines that Consolidated Petitioners' Contention E is admissible. Consolidated Petitioners identify an issue that is within the scope of this proceeding and material to the findings the NRC must make in evaluating Powertech's Application. Further, Consolidated Petitioners raise a genuine dispute with Powertech's Application, namely that issuance of the license would pose a threat to public health and safety due to lack of aquifer confinement and possible groundwater contamination. Consolidated Petitioners provide the expert opinion of Dr. Hannan LaGarry to support their assertion that there is a lack of confinement of the host aquifer. Whether or not the Board ultimately determines that there is indeed a lack of confinement of the host aquifer is not an issue for the contention admissibility stage of the proceeding. We therefore conclude that Consolidated Petitioners have met the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) and *admit* Contention E as merged with Contention J, *infra* at pp. 406-07.

Consolidated Petitioners state in Contention J:

> Section 51.45(c), (e) are violated because: the Application fails to describe the extent to which the affected area contains faults and fractures horizontally and vertically

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[200] *Id.*

[201] Staff Answer to Petition at 32.

[202] *Id.* at 33.

[203] *Id.*

[204] *Id.* at 34.

between aquifers, through which the groundwater can spread thorium, radium 226 & 228, arsenic and other heavy metals disturbed through the ISL mining process.[205]

Consolidated Petitioners assert that water containing these metals can travel through faults and fractures in the aquifer to contaminate clean drinking water and water used for household purposes, thereby making ill anyone who ingests the water.[206]

Both Powertech and the NRC Staff oppose admission of Contention J. Powertech argues that Contention J should not be admitted for the same reasons as Contentions D, F, and H.[207] Again, Powertech makes the argument that 10 C.F.R. § 51.45 does not "prescribe any form or specificity requirements for the type or extent of information that should be included" in an application.[208] Furthermore, Powertech claims that the information Consolidated Petitioners allege is missing is in fact in the Application, and that Contention J therefore does not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi) because it fails to raise a genuine dispute with Powertech's Application.

The NRC Staff argues that the information Consolidated Petitioners claim is omitted from Powertech's Application is indeed there, and that Consolidated Petitioners do not address these sections of the Application, in contravention of 10 C.F.R. § 2.309(f)(1)(vi).[209] Furthermore, the NRC Staff argues that Consolidated Petitioners fail to provide any alleged facts or expert opinion to support their "blanket assertion[ ]" that harmful materials could be transported through faults into surrounding aquifers.[210] Therefore, the NRC Staff asserts that Contention J is inadmissible because it does not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v).

At oral argument, counsel for Consolidated Petitioners conceded that Contention J was the same as Contention E except that Contention J expresses concern that the faults and fractures allegedly existing between aquifers can spread heavy metals, such as thorium, radium and arsenic.[211] For the same reasons the Board found Contention E to be admissible,[212] we determine that Contention J is *admissible.* To assure a more efficient proceeding,[213] we merge the two contentions,

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[205] Petition at 56.

[206] *Id.*

[207] Powertech Answer to Petition at 97.

[208] *Id.*

[209] Staff Answer to Petition at 92.

[210] *Id.* at 93.

[211] Tr. at 381-82.

[212] *See supra* at p. 405.

[213] *See Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 33 (2010) (citing *Crow Butte I,* CLI-09-12, 69 NRC at 552).

hereinafter to be designated Consolidated Petitioners' Contention E so that it now reads:

> The lack of adequate confinement of the host Inyan Kara aquifer makes the proposed operation inimical to public health and safety in violation of Section 40.31(d). Further, Applicant's failure to describe faults and fractures between aquifers, through which the groundwater can spread uranium, thorium, radium 226 and 228, arsenic, and other heavy metals, violates Section 51.45(c) and (e).

5. Consolidated Petitioners' Contention F

Consolidated Petitioners state in Contention F:

> The Application violates Section 51.45(c), (e) and 51.45(b)(5) by failure to describe irretrievable commitment of resources in the form of water resources taken from the Inyan Kara and Madison Aquifers in the form of the "bleed" and in connection with restoration which involves 320 gpm from the Inyan Kara and up to 500 gpm from the Madison, as described in the Application and referenced in this Petition above.[214]

Consolidated Petitioners provide no further explanation or information supporting this contention in their Petition or their Reply.

Both Powertech and the NRC Staff oppose admission of Contention F. Powertech argues that, like Contention D, Consolidated Petitioners' Contention F should be denied because section 51.45 "does not prescribe the form or specificity of the information to be offered."[215] Powertech claims that a discussion concerning the commitment of water resources is included in its Application.[216] Therefore, according to Powertech, Consolidated Petitioners' claim that Powertech's discussion of commitment of resources in their Application is inadequate and cannot support an admissible contention under 10 C.F.R. § 2.309(f)(1)(vi).

The NRC Staff argues that this contention is inadmissible because it fails to account for the sections of Powertech's Application that contain the information Consolidated Petitioners claim is missing.[217] Because Consolidated Petitioners do not dispute any of the conclusions in the Application, in contravention of 10 C.F.R. § 2.309(f)(1)(vi), the Staff argues that Contention F is inadmissible.

Contention F, like Contentions A and B, is a single sentence without any additional support. Because Consolidated Petitioners' Contention F, as pled,

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[214] Petition at 40.

[215] Powertech Answer to Petition at 56.

[216] *Id.*

[217] Staff Answer to Petition at 34.

does not attempt to address or otherwise discuss the six criteria of 10 C.F.R. § 2.309(f)(1), it is *not admitted*.[218]

6. Consolidated Petitioners' Contention G

Consolidated Petitioners state in Contention G:

> The Application violates Section 51.45(c) and (e) by failing in ER Section 1.3 to explain the details involved and exposures related to Applicant's proposal to "receive and process uranium loaded resins from other Proposed Projects such as Powertech's nearby Aladdin and Dewey Terrace Proposed Satellite Facility Projects planned in Wyoming or from other licensed ISL operators or other licensed facilities generating uranium-loaded resins."[219]

Consolidated Petitioners contend that, if Powertech is to be accepting resins from other mines, the Application must provide all plans and information "for those ores and for their processing before a permit is issued."[220] Consolidated Petitioners claim that issues such as the amount of nuclear material that will be handled, the amount of water to be used, how wastes will be disposed, and the impacts of having the additional resins onsite must be discussed in the Application before a license can be issued.[221]

Both Powertech and the NRC Staff oppose admission of Contention G. Powertech claims that this contention is outside the scope of the proceeding, in contravention of 10 C.F.R. § 2.309(f)(1)(iii).[222] It argues that, though Consolidated Petitioners accurately cite statements made by Powertech concerning possible future mining and processing of resins from other sites, "they ignore the fact that this Dewey-Burdock license application is strictly limited to the recovery and processing of uranium only from the Dewey and Burdock sites."[223] Powertech categorizes its statements regarding recovery of resins from other sites as "forward-looking" and not part of the current Application.[224]

The NRC Staff argues that Consolidated Petitioners cite no alleged facts or expert opinions to support Contention G, therefore not meeting the admissibility

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[218] The issue raised by Consolidated Petitioners' Contention F is similar to the Oglala Sioux Tribe's Contention 4, which is addressed *infra* at pp. 426-28.

[219] Petition at 40.

[220] *Id.*

[221] *Id.* at 40-41.

[222] Powertech Answer to Petition at 57.

[223] *Id.* at 58.

[224] *Id.*

requirements of 10 C.F.R. § 2.309(f)(1)(v).[225] Consolidated Petitioners contend that, simply because Powertech has identified the mining and processing of resins at other sites to be a possibility, the action and the impacts must be addressed in the Application.[226] The NRC Staff asserts that this is legally incorrect, and that Consolidated Petitioners fail to provide support for their assertion that Powertech needs to include this information in the Application.[227]

The Board determines that Consolidated Petitioners' Contention G is inadmissible because it is outside the scope of the current licensing proceeding and therefore is barred by 10 C.F.R. § 2.309(f)(1)(iii). In their pleadings and at oral argument, both Powertech and the NRC Staff asserted that the current Application is for a facility at the Dewey-Burdock site only, and that they do not consider a license to receive or process uranium from other facilities to be part of the current licensing request.[228] Indeed, counsel for NRC Staff stated that if Powertech were to receive resins from other sites under a license for the current Application, it would be in violation of that license and subject to enforcement measures, and possible revocation of the license.[229] Further, both Powertech and the NRC Staff agree that if Powertech were to decide to accept resins from other sites, a license amendment would be required, which would include a public notice and the opportunity to request a hearing before a licensing board.[230]

The Board notes Consolidated Petitioners' concern that, because Powertech stated in its Application that it may process resins from outside sources at the Dewey-Burdock facility in the future, it will be permitted to do so without having to file a license amendment. Consolidated Petitioners have not, however, provided the Board with any information that would lead the Board to believe that Powertech's statement was anything more than "forward-looking." We expect that, as both Powertech and the NRC Staff have represented to the Board, the public will be provided with an opportunity for a hearing in the event that Powertech decides to accept resins from other facilities at Dewey-Burdock.

For the foregoing reasons, we conclude that Consolidated Petitioners' Contention G is *inadmissible.*

7. Consolidated Petitioners' Contention H

Consolidated Petitioners state in Contention H:

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[225] Staff Answer to Petition at 35.
[226] *Id.* at 37.
[227] *Id.*
[228] Tr. at 361, 363.
[229] Tr. at 363.
[230] Tr. at 361-62.

> Section 51.45(c) and (e) is violated because in the Application Section 3.4.3.1.7 ER on hydraulic connection of aquifers, the Applicant provides information that is not local and fails to include studies that are closer to the proposed project area.[231]

Consolidated Petitioners provide no further explanation or information supporting this contention in their Petition or their Reply.

Both Powertech and the NRC Staff oppose admission of Contention H. Powertech argues that Contention H should not be admitted for the same reasons as Contentions D and F, namely that 10 C.F.R. § 40.9 does not impose an organizational requirement on applicants and that a claim of inadequacy in the Application under 10 C.F.R. § 51.45 cannot be the basis for a contention.[232] Powertech claims that Consolidated Petitioners must allege "specific 'safety or legal reasons' requiring rejection of the Dewey-Burdock license application."[233] Further, Powertech asserts that its Application does in fact include discussions of hydraulic connections between aquifers and that Consolidated Petitioners fail to address the sections of the Application that discuss local aspects of aquifers and site hydrology.[234] Powertech insists that Contention H is therefore inadmissible.

The NRC Staff argues that Contention H is inadmissible because it fails to discuss portions of Powertech's Application that contain local information related to hydraulic connections between aquifers.[235] Also, the NRC Staff contends that Consolidated Petitioners fail to cite any regulation or legal authority that would require Powertech to include local information in its Application.[236] Based on these arguments, the NRC Staff claims that Contention H is inadmissible because it fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

The Board determines that Consolidated Petitioners' Contention H, like Contentions A, B, and F, *supra,* is inadmissible because it fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi). As pled, Contention H consists of a single sentence that alleges the Application fails to include studies on the hydraulic connection of aquifers that are local to the proposed Dewey-Burdock site.[237] At oral argument, however, Consolidated Petitioners contended that the studies they believe should have been included in Powertech's

[231] Petition at 41.
[232] Powertech Answer to Petition at 59.
[233] *Id.*
[234] *Id.*
[235] Staff Answer to Petition at 38.
[236] *Id.*
[237] Petition at 41.

Application are attached to Dr. Jarding's expert opinion and cited a number of regulations they believe require Powertech to use local studies.[238]

Contention H fails for two reasons. First, Consolidated Petitioners fail to cite to any local studies in their Petition that Powertech could have or should have used in its Application. At oral argument, counsel for Consolidated Petitioners claimed that examples of local studies were attached to "Dr. Jarding's geological summary of published studies"[239] but failed to specify which of the more than a dozen studies cited in Dr. Jarding's summary are examples that would support this contention. As discussed with regard to Consolidated Petitioners' Contentions A, B, and F above, the Board cannot be expected to search through the Petition to find information that may support Consolidated Petitioners' contentions. Consolidated Petitioners did not refer to these studies in their pleading of Contention H, and Dr. Jarding did not make the allegation in her summary that these studies should have been used by the Applicant. Therefore, Consolidated Petitioners fail to provide adequate alleged facts or expert opinion to support Contention H, in contravention of 10 C.F.R. § 2.309(f)(1)(v).

Secondly, and more importantly, Consolidated Petitioners do not point to any NRC regulation that would require Powertech to include local studies in its Application. NRC Staff stated at oral argument that they are unaware of a regulation that requires this.[240] Consolidated Petitioners' failure to point to a regulation that requires the inclusion of omitted information in an application is fatal under 10 C.F.R. § 2.309(f)(1)(vi) and thus precludes the admission of Contention H. The Board therefore concludes that Consolidated Petitioners' Contention H is *inadmissible.*

8. Consolidated Petitioners' Contention I[241]

Consolidated Petitioners' Contention I consists of an amalgam of allegations asserting that Powertech's Application violates 10 C.F.R. Part 40, Appendix A and 10 C.F.R. § 51.45(c) and (e). Consolidated Petitioners support their claim of alleged violations with 100 statements of various lengths that are apparently meant to serve as bases for this contention. Due to the sheer length of Consolidated Petitioners' Contention I and the wide-ranging bases used to support it, the Board will not attempt to discuss each individually here. We note that some of the bases

[238] Tr. at 369, 370.

[239] Tr. at 369.

[240] Tr. at 370.

[241] Ordinarily the Board would include Contention I as presented by Consolidated Petitioners in their Petition. However, Contention I spans fifteen pages of the Petition and will not be reproduced in full here. *See* Petition at 41-56.

provided by Consolidated Petitioners raise issues that also are presented by other contentions proffered by Consolidated Petitioners.[242]

In the first 68 bases, Consolidated Petitioners allege that Powertech's Application violates 10 C.F.R. § 51.45(c) and (e) and Appendix A to Part 40 because it fails to provide specific analyses and omits the disclosure of adverse information. Bases 1-68 point to specific portions of the Application and take issue with the adequacy of the analyses provided or allege that Powertech fails to disclose information that may be adverse to its interests.

Consolidated Petitioners provide Bases 69-90 to support their claim that Powertech's Application is in violation of 10 C.F.R. § 40.9 because Powertech's Application does not provide the NRC with information that is both complete and accurate. Consolidated Petitioners list twenty-one examples of Powertech's alleged misrepresentations in the Application. Finally, Bases 91-100 allege that Powertech's Application violates 10 C.F.R. § 40.32(d) because Consolidated Petitioners claim that the above-mentioned misrepresented, inaccurate, or missing information poses unacceptable environmental risks that make issuance of the license inimical to the public health and safety.

Both Powertech and the NRC Staff oppose admission of Contention I and diligently refute each of the 100 bases provided by Consolidated Petitioners. Again, due to the length of the responses submitted by both parties, the Board will not attempt to discuss their arguments in detail. The vast majority of Powertech's responses to Consolidated Petitioners' asserted bases state that the alleged omissions or misstatements do not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi) because "they do not have a basis in law and are discussed in Powertech's Application."[243] Additionally, Powertech refutes some bases on the grounds that Consolidated Petitioners have not provided any alleged facts or expert opinion to support their statements.[244]

Like Powertech, the NRC Staff attempts to refute all of Consolidated Petitioners' bases on the grounds that they do not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and/or (vi). The Staff argues that most of the bases are "merely two- or three-sentence assertions with no apparent factual, legal, or expert support."[245] Furthermore, the Staff claims that "the Petitioners do

[242] For example, Bases 1, 4, and 5 raise issues similar to the ones raised in Contention D, Bases 6 and 89 raise issues similar to the ones raised in Contention F, Bases 10 and 11 raise issues similar to the ones raised in Contention H, and Bases 14, 71, and 94 raise issues similar to the ones raised in Contention K.

[243] *See, e.g.,* Powertech Answer to Petition at 71, 75, 76.

[244] *See, e.g., id.* at 89, 93, 94.

[245] Staff Answer to Petition at 39.

not cite the specific language of [the] regulations and explain why, as a matter of law, the information they identify must be included with the Application."[246]

Contention I is problematic from a number of perspectives. The first question that Contention I raises is whether it is a single contention with 100 bases, 100 separate contentions under a single heading, or three separate contentions in which the 100 bases are divided by the regulations the Consolidated Petitioners believe Powertech has, or the Commission will, violate if a license is granted. Secondly, does Contention I, as submitted by Consolidated Petitioners, satisfy all the subparts of section 2.309(f)(1) necessary to admit this contention whether it is viewed as a single contention, 100 contentions, or three contentions?

If Contention I is viewed as 100 separate contentions, it is clearly not admissible. None of the 100 bases taken individually addresses the six elements of 10 C.F.R. § 2.309(f)(1)(i)-(vi).[247] Indeed, many of the 100 bases are but a single phrase or sentence that at best alludes to only one element of section 2.309(f)(1). The NRC Staff and Powertech address each of the bases in their Answers as if it were a separate contention, citing to an element of section 2.309(f)(1) that is not addressed in that single basis and conclude one-by-one that none of the 100 bases is admissible as a contention. Of course, when using such an "atomizing" approach, no single basis would be admissible as a contention.[248]

If Contention I is viewed as three separate contentions, divided by the regulation allegedly violated, it also is not admissible. Counsel for the Consolidated Petitioners at oral argument seemed to recommend that the Board approach this contention as three separate contentions.[249] The three separate contentions would be as follows:

> Contention I(A): Powertech's Application violates 10 C.F.R. § 51.45(c) and (e) and Appendix A to Part 40 because it fails to provide specific analyses and omits the disclosure of adverse information. Bases 1 through 68 are associated with Contention I (A).

Contention I(A), as supported by bases 1 through 68, is not admissible because it fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi). Contention I(A) does not contain references to the specific sources and documents on which Consolidated Petitioners intend to rely to support their position on the issue.

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[246] *Id.*

[247] *See* Attachment A to this Memorandum and Order, which specifies in a three-page chart the infirmities of Contention I, if it is analyzed as 100 separate contentions. *Cf. System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 15 (2005) (Commission explains why Board decisions on contention admissibility are permissibly and "customarily terse.").

[248] *See Levy County,* CLI-10-2, 71 NRC at 36.

[249] Tr. at 370-71.

Apparently, Consolidated Petitioners would have the Board sift through the totality of their filed pleadings, attachments, and declarations to stitch together various statements to satisfy 10 C.F.R. § 2.309(f)(1). A Licensing Board is to rule upon the admissibility of a contention as that contention is spelled out in the pleadings. Further, for those bases in which Consolidated Petitioners allege the Application fails to contain information on a relevant matter as required by law, the Consolidated Petitioners fail to identify each failure, refer to the specific portions of the Application that contain this failure, or provide the supporting reasons for Consolidated Petitioners' belief. This contention thus does not comply with 10 C.F.R. § 2.309(f)(1)(vi).

> Contention I(B): Powertech's Application is in violation of 10 C.F.R. § 40.9 because it is not complete and accurate. Bases 69 through 90 are associated with Contention I(B).

Contention I(B) is not admissible because bases 69 through 90 do not provide a concise statement of the alleged facts or expert opinions that support Consolidated Petitioners' position on the issue and on which Consolidated Petitioners intend to rely at hearing. Further, Contention I(B) and bases 69 through 90 make no reference to "the specific sources and documents on which the Petitioner intends to rely to support its position on the issue."[250] Contention I(B) is merely a listing of issues with which Consolidated Petitioners disagree with the Application. It is the form of notice pleading that the Commission has long held is insufficient.[251]

> Contention I(C): Powertech's Application violates 10 C.F.R. § 40.32(d) because issuance of the license would be inimical to the public health and safety. Bases 91 through 100 are associated with Contention I(C).

Contention I(C) is inadmissible as well. As was the case with Contention I(B), it does not provide a concise statement of the alleged facts or expert opinions that support Consolidated Petitioners' position on the issue and on which Consolidated Petitioners intend to rely at hearing. Further, Contention I(C) and bases 91 through 100 make no reference to "the specific sources and documents on which the Petitioner intends to rely to support its position on the issue."[252] Contention I(C) is merely another listing of issues with which Consolidated

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[250] 10 C.F.R. § 2.309 (f)(1)(v).

[251] *See Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 482 (2010); *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).

[252] 10 C.F.R. § 2.309(f)(1)(v).

Petitioners disagree with the Application. Once again, it is the form of notice pleading that the Commission has long held is insufficient.[253]

Given that Contention I fails if considered as 100 separate contentions or as three contentions organized based on purported Application deficiencies with particular regulatory requirements, this leaves us only to consider, as was suggested at one point during the oral argument by counsel for Consolidated Petitioners, that Contention I be treated as a single contention.[254] Viewed as a single contention, Contention I is a veritable "kitchen sink" of a contention. It touches upon literally dozens of topics, including air and water quality, environmental justice, historical and cultural impacts, emergency planning, meteorological impacts, work force and aging population impacts, wildfires, and transportation impacts, but nowhere does it provide for any of them the "specific statement of the issue of law or fact to be raised or controverted" required by 10 C.F.R. § 2.309(f)(1)(i). Contention I, read as a single contention, is a lengthy list of issues on which Consolidated Petitioners indicate they disagree with the Application. The contention does not, however, demonstrate that any "issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding," as required by 10 C.F.R. § 2.309(f)(1)(iv); nor does it satisfy the requirements of section 2.309(f)(1)(vi) because it does not provide sufficient information to show that a genuine dispute exists with the Applicant on a material issue of law or fact.

In reaching this conclusion, we note that at oral argument, the Board tried to focus the inquiry to ascertain how each of the contentions proffered by the Consolidated Petitioners met the six requirements of 10 C.F.R. § 2.309(f)(1). Counsel for Consolidated Petitioners replied that the Board must piece together and complete a contention by searching the Petition, the declarations, and the exhibits appended to the Petition.[255] Instead of having each contention cite to an affidavit, or portion of an affidavit or exhibit relied upon, Consolidated Petitioners simply contend that all the affidavits submitted with their Petition "apply to all of the contentions."[256] Consolidated Petitioners contend further that "all the information submitted is to be read as a whole."[257] As the Commission has made clear in the cases cited in Section V.A, above, it is not within the province of a Licensing Board to piece together and create an admissible contention from a lengthy petition with numerous affidavits, declarations, and exhibits in an effort to create a viable contention. Rather, it is the responsibility of the petitioner to submit a contention containing all six elements required by 10 C.F.R. § 2.309(f)(1) in an orderly and organized fashion. Simply put, it is a petitioner's burden of

[253] *See supra* note 251.

[254] Tr. at 373. *But see* Tr. at 381.

[255] *Id.* at 288-96.

[256] *Id.* at 343.

[257] *Id.*

going forward at this stage of the proceeding to submit a complete, self-contained contention addressing each of the elements required by 10 C.F.R. § 2.309(f)(1). To be admissible, a contention must comply with every requirement listed in 10 C.F.R. § 2.309(f)(1).[258] Because the contention here fails to meet each of the contention admissibility requirements, it must be rejected.[259] Contention I is *not admitted.*

9. Consolidated Petitioners' SUNSI Contention (Designated Contention K)

On April 30, 2010, Consolidated Petitioners filed a new contention which it states is based on recently released SUNSI material.[260] The Board designates this new contention as Contention K. Contention K states:

> The Application is not in conformance with 10 C.F.R. § 40.9 and 10 C.F.R. § 51.45 because the Application does not provide analyses that are adequate, accurate, and complete in all material respects to demonstrate that cultural and historic resources . . . are identified and protected pursuant to Section 106 of the National Historic Preservation Act. As a result, the Application fails to comply with Section 51.60 . . . .[261]

Consolidated Petitioners contend that Powertech's Environmental Report (ER) is not complete in all material respects because Powertech's analysis of cultural resources in the mining area is based on the Augustana Report,[262] which Consolidated Petitioners maintain is flawed.[263] Consolidated Petitioners argue that the Augustana Report disregarded a number of historic sites by designating them ineligible for inclusion on the National Register and underevaluated a number of other sites that Consolidated Petitioners call "unknowns."[264] Consolidated Petitioners attach the expert opinion of Louis Redmond to support their assertion that the Augustana Report is an inadequate source upon which to base Powertech's analysis of cultural resources.[265]

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[258] *U.S. Army* (Jefferson Proving Ground Site), LBP-06-27, 64 NRC 438, 447 (2006).

[259] *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999); 69 Fed. Reg. at 2226.

[260] *See* New Contention.

[261] *Id.* at 1-2.

[262] The Augustana Report is part of Powertech's Level III Cultural Resources Evaluation for the Dewey-Burdock site. This evaluation was prepared by the Archaeology Laboratory of Augustana College (Rock Island, IL). The publicly available documents have been redacted of SUNSI material and are included in ADAMS as part of Powertech's Application (ADAMS Accession No. ML091030742).

[263] New Contention at 3-4.

[264] *Id.* at 4.

[265] *Id.* at 5.

Both Powertech and the NRC Staff oppose admission of Contention K. Powertech argues, again, that 10 C.F.R. § 51.45 does not prescribe any technical adequacy requirements, and that "Petitioners offer no support for how section 51.45 requires Powertech to submit its historic and cultural resource evaluation of the proposed Dewey-Burdock ISL site in the manner in which Petitioners allege."[266] Further, Powertech maintains that the Augustana Report is analytically complete and correct and that Consolidated Petitioners must not have read the entire report.[267] Powertech also asserts that the regulations do not require Powertech to investigate further the "unknown" sites or to perform subsurface testing on sites that were determined by Augustana to be ineligible for inclusion in the National Register.[268] Finally, Powertech argues that Contention K fails to dispute the data and conclusions offered by Powertech in its Application, and is therefore inadmissible under 10 C.F.R. § 2.309(f)(1)(vi).[269]

The NRC Staff maintains that 10 C.F.R. § 40.9, cited by Consolidated Petitioners in this Contention, is irrelevant to the issues they raise, and that Consolidated Petitioners fail to show that Powertech has not met the requirements of 10 C.F.R. §§ 51.45 and 51.60.[270] Furthermore, the Staff argues that Consolidated Petitioners mischaracterize the Augustana Report, in that the report is more than a mere listing of existing sites.[271] The NRC Staff also submits that, contrary to Consolidated Petitioners' assertion, subsurface testing was in fact conducted at the Dewey-Burdock site, but that subsurface testing of *every* possible cultural site is not required under the regulations.[272] With regard to the "unknown" sites, the NRC Staff states that any unevaluated sites are located outside the Dewey-Burdock area that will initially be disturbed and so will be evaluated at a later date.[273] In sum, the NRC Staff claims that Consolidated Petitioners fail to explain why Powertech needs to evaluate all archaeological sites at this time, and fail to raise a genuine dispute with Powertech's Application, in contravention of 10 C.F.R. § 2.309(f)(1)(v) and (vi).[274]

The regulations cited by Consolidated Petitioners in Contention K (10 C.F.R.

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[266] Powertech Answer to New Contention at 11-12. Powertech also argues that 10 C.F.R. §§ 40.9 and 51.60, both cited by Consolidated Petitioners, will offer them no relief because both sections merely set forth Commission requirements, and do not prescribe the ways in which an applicant is to meet these requirements.

[267] New Contention at 13.

[268] *Id.* at 14-15.

[269] *Id.* at 16.

[270] Staff Answer to New Contention at 5-6.

[271] *Id.* at 7.

[272] *Id.* at 8-9.

[273] *Id.* at 11.

[274] *Id.* at 12.

§§ 40.9, 51.45, and 51.60) concern the information that needs to be included in an applicant's ER in order for a license to be issued. Part 51 of the NRC's regulations implements NEPA and requires an agency assessment of environmental impacts when a project is proposed, as is the case here. Under 40 C.F.R. § 1502.16(g) of the Council on Environmental Quality's (CEQ) NEPA implementing guidance regulations,[275] cultural and historic resources are to be considered as part of the environmental impacts assessment that must be completed.[276] While the duty to comply with NEPA falls upon the agency and not upon the applicant or licensee,[277] the requirements of Part 51 must be met by the applicant. Section 51.45 clearly requires an applicant to discuss in its ER "[t]he impact of the proposed action on the environment."[278] Since an impact analysis under NEPA requires that cultural and historic resources be considered, we conclude that a sufficient discussion of cultural and historic resources must be included in an applicant's ER.

Though such a discussion is present in Powertech's Application, Consolidated Petitioners allege that the cultural resources information included is inadequate. Whether the information Powertech provides is adequate to satisfy 10 C.F.R. §§ 40.9, 51.45, and 51.60 is a merits determination that this Board is prohibited from making at this time. In other words, whether or not the Augustana Report is an adequate study upon which to base many of Powertech's conclusions in its Application raises a genuine dispute with Powertech's Application. Additionally, Consolidated Petitioners have provided alleged facts and the expert opinion of Louis A. Redmond[279] to support their assertion that the cultural resources information in the Application is inadequate. Contrary to the arguments of the NRC Staff and Powertech, the Board concludes that Consolidated Petitioners therefore meet the requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi). Contention K is *admitted.*

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[275] CEQ's regulations receive substantial deference from the federal courts in interpreting the requirements of NEPA. *See, e.g., Department of Transportation v. Public Citizen,* 541 U.S. 752, 757 (2004); *Andrus v. Sierra Club,* 442 U.S. 347, 356-58 (1979). The Supreme Court, however, has expressly left open the issue whether CEQ regulations are binding on the NRC. *See Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.,* 462 U.S. 87, 99 n.12 (1983). The NRC takes the position that "NRC as an independent regulatory agency can be bound by CEQ's NEPA regulations only insofar as those regulations are procedural or ministerial in nature. NRC is not bound by those portions of CEQ's NEPA regulations which have a substantive impact on the way in which the Commission performs its regulatory functions." 49 Fed. Reg. 9352 (Mar. 12, 1984). But the Commission also has "an announced policy to take account of the [CEQ regulations] voluntarily, subject to certain conditions." 10 C.F.R. § 51.10(a).

[276] *See Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-05-26, 62 NRC 442, 450 (2005).

[277] *Levy County,* CLI-10-2, 71 NRC at 33.

[278] 10 C.F.R. § 51.45(b)(1).

[279] Dr. Redmond is president of Red Feather Archaeology and has prepared cultural resource and heritage resource surveys.

C. Board Rulings on the Oglala Sioux Tribe's Proposed Contentions

1. The Tribe's Contention 1

The Oglala Sioux states in Contention 1:

> Failure to meet applicable legal requirements regarding protection of historical and cultural resources, and failure to involve or consult the Oglala Sioux Tribe as required by Federal law.[280]

The Oglala Sioux claims that Powertech has failed to comply with federal law and NRC regulations because it has not consulted with the Oglala Sioux regarding historical and cultural sites that have been identified by Powertech in its Application.[281] The Oglala Sioux also states that it is concerned that the number of sites that might be impacted by Powertech's project may be higher than the number reported in the Application due to Powertech's failure to consult with the Oglala Sioux.[282] The Oglala Sioux cites a number of federal regulations, such as the NHPA, NEPA,[283] and an Executive Order,[284] that require consultation with those Indian Tribes "that attach[ ] religious and cultural significance" to cultural and historical sites. The Tribe asserts that these regulations require consultation as soon as possible in the application process, and that Powertech has been dilatory in satisfying this requirement.[285]

Furthermore, the Oglala Sioux points to NRC regulations and guidance that it claims require the Applicant to consult with it regarding these cultural sites. The Tribe argues that 10 C.F.R. § 51.45(b) and NUREG-1569 implement the requirements of NEPA and the NHPA, thereby requiring Powertech to consult with the Tribe.[286] The Oglala Sioux distinguishes the circumstances currently before the Board from those in the *Crow Butte II* proceeding, where the Commission determined that the Tribe's contention regarding compliance with the consultation requirements was not ripe.[287] The Oglala Sioux argues that here, "the

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[280] Tribe Petition at 12.

[281] *Id.*

[282] *Id.* The Oglala Sioux provides the affidavit of Wilmer Mesteth as support for this contention. *See* Affidavit of Wilmer Mesteth (Apr. 1, 2010).

[283] 42 U.S.C. § 4321.

[284] Presidential Executive Order 13,007, Indian Sacred Sites, 61 Fed. Reg. 22,951 (May 24, 1996); Tribe Petition at 16.

[285] Tribe Petition at 16.

[286] *Id.* at 12-13.

[287] *Id.* at 16. *See also Crow Butte II,* CLI-09-9, 69 NRC at 348-51.

NHPA requires consultation under Section 106 to begin as early as possible in the consideration of an undertaking."[288]

Both Powertech and the NRC Staff oppose admission of Contention 1. Powertech makes two arguments in attempting to refute the admissibility of Contention 1. First, Powertech claims that 10 C.F.R. § 51.45(b)-(d) does not require it to consult with the Tribe, as the Tribe argues, but instead "only describe[s] the categories of potential impacts, to the extent relevant, that a license applicant should address in an environmental report."[289] Because Powertech's Application analyzes the cultural and historic resources involved, Powertech asserts that Part 51 has not been violated because it does not impose an adequacy requirement on Powertech.[290]

Powertech's second argument deals with its duty to satisfy the consultation requirements under NEPA and the NHPA. Powertech argues that the duty to consult with the Oglala Sioux Tribe under these two Acts is the duty of the NRC Staff and not the duty of the applicant.[291] NEPA and the NHPA, according to Powertech, impose the duty to consult on a federal agency, and not a licensee.[292] Furthermore, Powertech submits that Contention 1 is not ripe for the Board's consideration at this time, because, under the Commission's ruling in *Crow Butte II,*[293] the Oglala Sioux Tribe cannot claim that the NRC Staff has failed to comply with its duty when the NEPA review process has only just begun.[294]

The NRC Staff argues that the Tribe fails to support its claim that Powertech insufficiently evaluated historic and cultural resources at its proposed ISL site.[295] The Staff claims that the affidavit of Mr. Mesteth, on which the Oglala Sioux relies for many of its assertions, rests on statements that are either unsupported or are misreadings of Powertech's Application.[296] For this reason, the Staff argues that Contention 1 fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and fails to raise a genuine dispute with Powertech's Application in contravention of 10 C.F.R. § 2.309(f)(1)(vi). Like Powertech, the Staff also argues that Contention 1 is not ripe for review by this Board under the Commission's ruling in *Crow Butte II.*[297]

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[288] Tribe Petition at 17.

[289] Powertech Answer to Tribe at 39.

[290] *Id.* at 39.

[291] *Id.*

[292] *Id.*

[293] *Crow Butte II,* CLI-09-9, 69 NRC at 348-51.

[294] Powertech Answer to Tribe at 39-40.

[295] Staff Answer to Tribe at 16.

[296] *Id.*

[297] *Id.* at 20. *See also Crow Butte II,* CLI-09-9, 69 NRC at 348-51.

In its Reply, the Oglala Sioux maintains that the declaration of Mr. Mesteth does challenge the adequacy of Powertech's cultural resources information, contrary to what Powertech and the NRC Staff assert.[298] The Tribe asserts that this contention is ripe because the violations to the NHPA and NEPA are ongoing and should not be relegated to the later part of the proceedings before being redressed.[299] Finally, the Oglala Sioux claims that the NRC Staff is inappropriately arguing the merits of Contention 1, and that this contention meets all the requirements necessary at this stage of the proceeding.[300]

Insofar as Contention 1 challenges the adequacy of the cultural resource information in Powertech's Application, the Board determines that Contention 1 is admissible for the same reasons we concluded that Consolidated Petitioners' Contention K was admissible. The Tribe provides the opinion of Mr. Mesteth to support its assertion that the cultural resource information in Powertech's Application is inadequate to meet the requirements of 10 C.F.R. §§ 51.45 and 51.60. Moreover, this information is adequate, as far as this Board is concerned, to raise a genuine dispute with Powertech's application. Accordingly, contrary to the arguments of Powertech and the NRC Staff, the Board concludes that the Tribe's Contention 1 does in fact meet the admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

In Contention 1, the Tribe also alleges that Powertech has failed to consult with the Tribe regarding identified and potential cultural and historic resources found on the proposed mining site. As far as this issue is concerned, the Board is obligated under existing Commission precedent to deny this portion of Contention 1. In *Crow Butte II,* the Commission denied a similar contention submitted by the Oglala Sioux Tribe because it found the matter to be unripe at the contention admissibility stage of the proceeding.[301] At oral argument, counsel for the Tribe attempted to distinguish the present proceeding from the Commission's decision in *Crow Butte II* by arguing that NEPA and the NHPA require consultation to begin as early as possible in the licensing process and that there is an ongoing violation of federal law since this process has yet to begin here.[302]

As the Commission made clear in *Crow Butte II,* it is not the duty of an applicant to consult with a Tribe regarding cultural resources at a proposed site, but instead is the duty of the agency to initiate and follow through with the consultation

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[298] Tribe Reply at 22.

[299] *Id.* at 23.

[300] *Id.* at 21.

[301] *Crow Butte II,* CLI-09-9, 69 NRC at 350-51.

[302] Tr. at 129-31.

process.[303] The alleged failure to consult in this proceeding, therefore, cannot be the fault of Powertech. And, because the NRC Staff has not completed its environmental review of the Dewey-Burdock proposed project, this Board cannot find that they have been dilatory in their duty to consult with the Tribe.[304] As noted by the Commission in its *Crow Butte II* ruling, the Tribe is free to file a contention later on in this proceeding if, after the Staff releases its environmental documents, the Tribe believes that the Staff has failed to satisfy its obligations under NEPA and the NHPA.[305]

In sum, the Board concludes that the component of Contention 1 that deals with the inadequacy of the historic and cultural resource information in Powertech's Application is *admissible.* However, the Board will not consider at this time[306] the issue of the alleged failure to consult with the Tribe regarding cultural and historic resources on Powertech's proposed Dewey-Burdock site. Consultation with the Tribe is material and within the scope of this proceeding. However, this portion of Contention 1 is not ripe. The Tribe must wait until the draft supplemental environmental impact statement (SEIS) is issued by the NRC Staff to interpose the issue of the adequacy of the agency's consultation efforts.[307] Whether and how the Staff fulfills its NHPA and NEPA obligations are issues that could form the basis of a new contention.[308]

At this time we determine that the portion of Contention 1 that deals with a failure to consult *inadmissible.* Contention 1 is *admitted* as follows:

> Powertech's Application is deficient because it fails to address adequately protection of historical and cultural resources.

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[303] 36 C.F.R. § 800.2(c)(2)(ii)(D) (stating that "[w]hen Indian tribes . . . attach religious and cultural significance to historic properties off tribal lands, section 101(d)(6)(B) of the act requires *Federal agencies* to consult with such Indian tribes . . ." (emphasis added)).

[304] Tr. at 132-33.

[305] *Crow Butte II,* CLI-09-9, 69 NRC at 351.

[306] *Id.*

[307] The Staff has indicated that it will issue an SEIS to supplement the analysis in its generic EIS for ISL facilities. *See* Staff Answer to Tribe at 4; NUREG-1910, "Generic Environmental Impact Statement for In-Situ Leach Uranium Milling Facilities — Draft Report for Comment," Vol. 1 (July 28, 2008) (ADAMS Accession No. ML0914802440).

[308] *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"). Such a contention is usually considered timely if filed within thirty (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).

2. The Tribe's Contention 2

The Oglala Sioux states in Contention 2:

> Failure to include necessary information for adequate determination of baseline ground water quality.[309]

The Oglala Sioux argues that Powertech's Application violates 10 C.F.R. § 51.45, Appendix A to Part 40 and NEPA by failing to "provide an adequate baseline groundwater characterization or demonstrate that groundwater samples were collected in a scientifically defensible manner, using proper sample methodologies."[310] The Tribe provides the expert opinion of Dr. Robert Moran to support Contention 2. Dr. Moran alleges analytical deficiencies in the groundwater baseline characterization (e.g., there is no "statistically sound data set for *all* Baseline Water Quality data,"[311] the historic water quality data is not statistically summarized in one place for the reader, and it is unclear whether Powertech has baseline data for non-ore zone regions),[312] deficiencies with regard to characterization of non-ore zone regions, and deficiencies regarding the integrity of the baseline water quality data obtained by Powertech.[313]

Both Powertech and the NRC Staff oppose admission of Contention 2. Powertech argues that the pertinent regulation, 10 C.F.R. § 40.32(e), does not require detailed groundwater baseline information at this stage of the licensing process.[314] Also, Powertech identifies specific areas in the Application that contain the information the Tribe claims was omitted.[315] Finally, Powertech claims that Contention 2 "does not offer any information demonstrating a significant link between its allegations and a specific potential health and safety or environmental impact."[316]

The NRC Staff attempts to refute each of Dr. Moran's assertions in Contention 2.[317] The Staff argues that Dr. Moran fails to dispute the baseline data provided in Powertech's Application and fails to cite requirements that Powertech include more information in the Application.[318] The NRC Staff submits that Contention 2

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[309] Tribe Petition at 17.
[310] *Id.*
[311] *Id.* at 19.
[312] *Id.* at 18-19.
[313] *Id.*
[314] Powertech Answer to Tribe at 40.
[315] *Id.* at 40-41.
[316] *Id.* at 41.
[317] Staff Answer to Tribe at 21-24.
[318] *Id.* at 22, 23, 24.

cannot be admitted because it fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).[319]

In its Reply, the Oglala Sioux argues that the NRC Staff and Powertech are again arguing the merits of Contention 2 in their answers and that Contention 2 is properly pled under 10 C.F.R. § 2.309(f)(1).[320]

The Board determines that the Tribe's Contention 2 is admissible. Counsel for Powertech submitted at oral argument that 10 C.F.R. § 40.32(e) prohibits it from gathering complete information on baseline water quality.[321] The Board disagrees with this interpretation of the regulation. The last sentence of 10 C.F.R. § 40.32(e) explicitly exempts "preconstruction monitoring and testing to establish background information" from the prohibition on commencement of construction. We believe that such preconstruction monitoring includes adequate assessments of baseline water quality. This interpretation is supported by the requirement in Criterion 7 of Appendix A to Part 40, which states that an applicant must provide "complete baseline data on a milling site and its environs." We acknowledge that, as discussed *infra,* Appendix A to Part 40 does not always apply to ISL facilities. However, at oral argument, the Staff conceded that the first sentence of Criterion 7, which requires complete baseline data, applies to Powertech in this case.[322] Furthermore, the NRC Staff has refused to take a position on whether Powertech has provided the complete and necessary baseline water quality data in its Application because its review is ongoing.[323]

We conclude that the Tribe has raised a genuine dispute as to the adequacy and completeness of the information Powertech provided in its Application. We also conclude that the Tribe identifies an issue that is within the scope of this proceeding and material to the findings the NRC must make in evaluating Powertech's Application. Further, the Tribe raises a genuine dispute with Powertech's Application, namely whether Powertech has provided sufficient detail and scientifically defensible methodology for its baseline water quality data. The Oglala Sioux, with the expert opinion of Dr. Moran, provides support for its assertions. We therefore conclude that the Oglala Sioux has met the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) and *admit* Contention 2.

3. The Tribe's Contention 3

The Oglala Sioux states in Contention 3:

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[319] *Id.* at 25.

[320] Tribe Reply at 25.

[321] Tr. at 163.

[322] *Id.* at 158.

[323] *Id.*

> Failure to include adequate hydrogeological information to demonstrate ability to contain fluid migration.[324]

The Oglala Sioux argue that Powertech fails to meet the requirements of 10 C.F.R. §§ 40.31(f), 51.45, 51.60, Appendix A to Part 40, NEPA, and NUREG-1569[325] by neglecting "to provide sufficient information regarding the geological setting of the area . . . ."[326] The Oglala Sioux submits that adequate information is necessary "to adequately characterize the site and off-site hydrogeology to ensure confinement of the extraction fluids."[327] If the hydrogeology is not properly characterized, the Oglala Sioux contends, the effects of Powertech's proposed project on surface and ground waters cannot be properly evaluated.[328] The Tribe provides the expert opinion of Dr. Moran, who supports the Tribe's arguments that Powertech's Application includes "unsubstantiated assumptions as to the isolation of the aquifers in the ore-bearing zones and failure to account for natural and man-made hydraulic conductivity through natural breccias pipe formations and the historic drilling of literally thousands of drill holes in the aquifers and ore-bearing zones in question, which were not properly abandoned."[329] The Oglala Sioux also cite an EPA document that criticizes the Commission's environmental review process for ISL mining.[330]

Both Powertech and the NRC Staff oppose admission of Contention 3. First, Powertech asserts that the Commission "only requires generalized information regarding pre-operational baseline water quality in the proposed recovery zone and at prospective monitor well locations on a regional basis and does not require detailed site-specific information until the 'post-licensing.'"[331] Powertech then goes on to attempt to discredit specific statements made by Dr. Moran in support of Contention 3. With regard to each statement, Powertech asserts that the Oglala Sioux has failed to offer any genuine dispute on a material issue of fact because Contention 3 does not challenge the information provided in Powertech's Application, as 10 C.F.R. § 2.309(f)(1)(vi) requires.[332]

The NRC Staff argues that Contention 3 should be dismissed by the Board because it fails to meet the contention admissibility requirements of 10 C.F.R.

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[324] Tribe Petition at 21.

[325] NUREG-1569 is the NRC Staff's Standard Review Plan for In-Situ Leach Uranium Extraction License Applications (ADAMS Accession No. ML032250177).

[326] *Id.*

[327] *Id.* at 22.

[328] *Id.*

[329] *Id.*

[330] *Id.*

[331] Powertech Answer to Tribe at 42.

[332] *See id.* at 42, 43, 44, 45.

§ 2.309(f)(1)(v) and (vi).[333] The NRC Staff asserts that Dr. Moran's statements in support of Contention 3 fail to take into account sections of Powertech's Application that address regional hydrogeology, mine data, and other site-specific data.[334] Moreover, the NRC Staff claims that Dr. Moran's statements are based on a misreading of Powertech's Application or are unsupported assertions.[335]

In its Reply, the Oglala Sioux maintains that Dr. Moran's statements, as a whole, support the admission of Contention 3, and that the NRC Staff's and Powertech's practice of attacking his statements in isolation is "spurious, akin to setting up a straw man."[336] Further, the Oglala Sioux asserts that it did in fact take issue with specific analyses and data in Powertech's Application, and cites portions of the Application it felt were inadequate, thereby raising a genuine dispute with the Application.[337]

The Board determines that the Tribe's Contention 3 is admissible. The Tribe identifies an issue that is within the scope of this proceeding and material to the findings the NRC must make in evaluating Powertech's Application. Further, the Tribe raise a genuine dispute with Powertech's Application, namely with respect to the adequacy of information needed to characterize the site and offsite hydrogeology to ensure confinement of the extraction fluids. The Oglala Sioux provides the expert opinion of Dr. Moran to support its assertions. We therefore conclude that the Oglala Sioux has met the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) and *admit* Contention 3.

4. The Tribe's Contention 4

The Oglala Sioux states in Contention 4:

> Inadequate analysis of Ground Water Quantity Impacts.[338]

The Oglala Sioux argues that Powertech's Application violates 10 C.F.R. §§ 40.32(c), (d), and 51.45 by failing to analyze the impacts of groundwater consumption on public health and safety and property.[339] The Oglala Sioux also submits that Powertech's Application presents conflicting groundwater consumption information, thereby making this information impossible to evaluate

[333] Staff Answer to Tribe at 26.
[334] *Id.* at 26, 27, 28, 29, 30.
[335] *Id.* at 26.
[336] Tribe Reply at 26-27.
[337] *Id.* at 27-28.
[338] Tribe Petition at 25.
[339] *Id.*

accurately.[340] To support Contention 4, the Oglala Sioux provides the declaration of Dr. Moran.[341]

Both Powertech and the NRC Staff oppose admission of Contention 4. Again, Powertech makes the argument that 10 C.F.R. § 51.45 does not impose an adequacy requirement on Powertech and that its inclusion of information on groundwater consumption in the Application is sufficient to comply with that regulation.[342] Indeed, Powertech asserts that the Application addresses groundwater consumption impacts and that neither the Oglala Sioux nor Dr. Moran provides information that contradicts Powertech's data or analyses.[343] Therefore, Powertech claims that Contention 4 should be denied because it fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi).

The NRC Staff argues that Contention 4 should be dismissed because Powertech does, in fact, provide an analysis of groundwater impacts in its Application.[344] Furthermore, NRC Staff submits that Dr. Moran's statements that Powertech's estimates of water usage are inconsistent are not supported and fail to establish a genuine issue with Powertech's Application, thereby failing to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).[345]

In its Reply, the Oglala Sioux once more accuses the NRC Staff and Powertech of arguing against the admission of Contention 4 based on a merits analysis.[346] In addition, the Oglala Sioux maintains that, contrary to Staff's and Powertech's assertions, the Tribe Petition does reference portions of the Application that it determined were relevant to the issues raised in Contention 4.[347]

The Board determines that the Tribe's Contention 4 meets the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). The issue raised is within the scope of this licensing proceeding and is material to the findings the NRC must make. The Tribe supports its assertions with the expert opinion of Dr. Moran, who, according to Tribe counsel, opines that "there is no credible project water balance that investigates the potential impact on local groundwater levels."[348] In that regard, Dr. Moran describes the project area as semi-arid with an average yearly precipitation of about 12 to 13 inches. Yearly evapotranspiration (ET) estimates are roughly 70 inches per year, or about five times the yearly precipita-

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[340] *Id.*

[341] *Id.* at 26.

[342] Powertech Answer to Tribe at 46.

[343] *Id.*

[344] Staff Answer to Tribe at 33.

[345] *Id.* at 34.

[346] Tribe Reply at 30.

[347] *Id.*

[348] Tr. at 215.

tion.[349] Dr. Moran states that with the project expected to operate between 7 and 20 years, it will require the use of tremendous volumes of local groundwater and, without a credible project water balance, it is not possible to more seriously investigate the potential that such large-volume water use might impact local/regional groundwater levels.[350]

Though there seems to be some confusion as to exactly how much water will be used during operations, the Tribe has still established a genuine material dispute with Powertech's Application. At oral argument, counsel for the Tribe stated that "the [environmental] impacts associated with . . . drawdown have not been disclosed and reviewed in the application materials."[351] Powertech and NRC Staff disagree with this assertion, but it is not for the Board to decide at this point in the proceeding which party is correct. The adequacy of the information provided in Powertech's Application will be evaluated by the Board as part of a merits analysis. Because of the time cycle of uranium mining and reclamation operations, water use patterns vary and some confusion was involved with review of the information in the Application. The basic requirement needed to satisfy this contention is a detailed description of sources and amounts of groundwater used and the effects of the use and consumption of the groundwater in the mining operations, including restoration and waste water disposal.

For the foregoing reasons, the Board concludes that the Tribe's Contention 4 is *admissible.*

5. The Tribe's Contention 5

The Oglala Sioux states in Contention 5:

> Failure to adequately calculate bond for decommissioning.[352]

The Oglala Sioux claims that, in contravention of the requirements of Appendix A to Part 40, Powertech has failed to provide a sufficient financial assurance cost estimate "to assure the availability of sufficient funds to complete the reclamation plan and the activities in the application by an independent contractor."[353] The Oglala Sioux takes issue with Powertech's decommissioning cost estimates in the Application, which are based on the assumption that there will be full production of the mine in 2011, only minor production in 2012, and no production beyond 2012. Because the Application states that operation of the mill will continue for 7

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[349] *See* Environmental Report at 3-176, -177, Figure 3.6-27.

[350] Declaration of Robert E. Moran at 9 (Apr. 4, 2010).

[351] Tr. at 212.

[352] Tribe Petition at 27.

[353] *Id.*

to 20 years,[354] the Oglala Sioux submits that these estimates are insufficient for the assurance of adequate funding.[355] Furthermore, the Oglala Sioux points out that the Application indicates that restoration times for the mine may be longer than anticipated, yet the financial surety calculations do not reflect longer restoration time.[356] This Contention is supported by a declaration by Dr. Moran.

Both Powertech and the NRC Staff oppose admission of Contention 5. Powertech claims that Contention 5 should be dismissed because it is not required by law to "submit financial cost estimates for any site activities beyond the initial stages of site construction and development."[357] Powertech argues that admitting Contention 5 would require it to calculate the financial assurance for the entire Dewey-Burdock project.[358] Finally, Powertech contends that Contention 5 is essentially moot because the Commission requires Powertech "to provide updated NRC-approved financial assurance every year that accounts for the status of activities at the site . . . ."[359] Therefore, the cost calculations the Oglala Sioux is asking Powertech to furnish now will in fact be furnished over the life of the project.[360] As a result, Powertech states that Contention 5 is inadmissible because it does not raise a genuine dispute with the Application, in contravention of 10 C.F.R. § 2.309(f)(1)(vi).

NRC Staff asserts that Contention 5 should be dismissed because the Oglala Sioux failed to explain why Powertech needs to provide additional cost estimates to those already presented in their Application.[361] Additionally, the NRC Staff argues that, because the Oglala Sioux does not challenge the methodology Powertech used to calculate total decommissioning costs, Contention 5 does not raise a genuine dispute with the Application and therefore does not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi).[362] Finally, the NRC Staff claims that NRC procedures "will be sufficient to ensure that funds are available to carry out decommissioning of the Dewey-Burdock facility by an independent contractor."[363]

In its Reply, the Oglala Sioux counters NRC Staff's argument that Powertech has provided sufficient decommissioning information by stating that the NRC issued a request for additional information (RAI) regarding decommissioning,

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[354] *Id.*

[355] *Id.*

[356] *Id.*

[357] Powertech Answer to Tribe at 47-48.

[358] *Id.*

[359] *Id.* at 48.

[360] *Id.*

[361] Staff Answer to Tribe at 35.

[362] *Id.*

[363] *Id.* at 36.

suggesting that the NRC Staff does not believe that the information provided by Powertech is sufficient.[364]

Criterion 9 in Appendix A to 10 C.F.R. Part 40 requires an applicant to establish a surety arrangement that ensures sufficient funds will be available for decommissioning and decontamination of an NRC-licensed source materials site.[365] Criterion 9 provides little instruction regarding how calculations should be made, and addresses decommissioning and decontamination matters very generally. Where regulatory authority is lacking, the Commission has indicated that turning to NRC Staff guidance documents can be useful.[366] In NUREG-1569, surety bond calculations are to be estimated "[t]o the extent possible," and based on the applicant's "experience with generally accepted industry practices."[367]

The Board determines that the Tribe has not identified any specific inadequacies with Powertech's surety bond calculations as set forth in its Application. Nor has the Tribe cited any specific regulations that would require Powertech to include more information in its Application than was already included. In fact, the Tribe argues that Powertech's estimate should be higher than what it was, but does not account for the fact that these estimates are not final and will need to be updated before the license is issued.[368] As the Commission has noted, "[s]urety arrangements are matters appropriately addressed after issuance of the license, and even after completion of a hearing. Criterion 9 [of 10 C.F.R. Part 40, Appendix A] makes clear that a surety arrangement is necessary as a prerequisite to *operating,* not as a prerequisite to *licensing*."[369] As such, the Board concludes that the Tribe has not met the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi), and its Contention 5 is accordingly *not admitted.*

6. The Tribe's Contention 6

The Oglala Sioux states in Contention 6:

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[364] Tribe Reply at 31.

[365] *See* 10 C.F.R. Part 40, App. A, Criterion 9; *see also Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), LBP-04-3, 59 NRC 84, 88 (2004).

[366] *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-33, 60 NRC 581, 596 (2004) (Commission acknowledges that Staff guidance documents are not legally binding, yet recognizes the usefulness in instances where legal authority is lacking).

[367] NUREG-1569 at 6-24.

[368] *See* Tr. at 318-19.

[369] *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-00-8, 51 NRC 227, 240 n.15 (2000).

> Inadequate technical sufficiency of the application and failure to present information to enable effective public review resulting in denial of due process.[370]

In Contention 6, which is similar to portions of Consolidated Petitioners' Contention D, the Oglala Sioux claims that NEPA, Reg. Guide 3.46, and NUREG-1569 are being violated because Powertech fails to present information in its Application in a concise, easily understandable manner.[371] Dr. Moran, whose declaration supports admission of this Contention, states that the information in the Application is "so disorganized and technically-deficient that it does not comply with the terms of NUREG-1569 . . . and should be revised."[372]

Both Powertech and the NRC Staff oppose admission of Contention 6. Powertech claims that it complied with all NRC guidance in its preparation of the Application, and that the Commission would not have accepted the Application for review if it were disorganized and technically inadequate.[373] Further, Powertech submits that many of Dr. Moran's claimed omissions are actually present in the Application, thereby rendering Contention 6 inadmissible because it fails to raise a material dispute with the Application, in contravention of 10 C.F.R. § 2.309(f)(1)(vi).[374]

The NRC Staff argues that Contention 6 should be denied because the Oglala Sioux does not present a genuine dispute with the Application and fails to support its arguments, thereby failing to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(v) and (vi).[375] Simply put, the NRC Staff's position is that the Oglala Sioux fails to support its claim that Powertech's Application violates NEPA or NUREG-1569 by being disorganized.[376] Indeed, the Staff maintains that the five examples of disorganization provided by Dr. Moran are not indicative of the readability of a 6000-plus-page document.[377]

As in Contention 5, the Oglala Sioux seeks to rebut the Staff's and Powertech's arguments against admissibility of Contention 6 by citing the fact that an RAI was issued by the Staff asking Powertech to furnish basic technical information that was lacking from the Application.[378] The Oglala Sioux maintains that this RAI is

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[370] Tribe Petition at 28.

[371] *Id.*

[372] *Id.* at 29.

[373] Powertech Answer to Tribe at 49.

[374] *Id.* at 50.

[375] Staff Answer to Tribe at 37.

[376] *Id.*

[377] *Id.* at 38.

[378] Tribe Reply at 33-34.

evidence of the fact that the Application did not present sufficient information to the public in a way that is understandable.[379]

The Board determines that the Tribe's Contention 6 inadmissible. The Tribe's argument that Powertech's Application is disorganized and, therefore, technically deficient, is not adequately supported, as the Tribe identifies only five instances in the entire Application where it claims disorganization presented an obstacle to their expert. The Board is also unaware of any legal precedent or any NRC regulations that require an application to meet any organizational criteria or else risk being classified as technically inadequate. Though the Tribe cites to the NEPA requirement that environmental documents "be written in plain language . . . so that decision-makers and the public can readily understand them,"[380] the Tribe has not shown how this requirement applies to the Applicant, as NEPA itself is binding only on the agency.[381]

Furthermore, as we noted relative to Consolidated Petitioners' Contention D above, issues of disorganization in an application cannot be said to be germane to this licensing proceeding. According to the Board in *HRI,* "[a]ny area of concern is germane if it is relevant to whether the license should be denied or conditioned."[382] The organization or coherence of an application was not considered by that Board to be germane because it was not an objection to the licensing action at issue in the proceeding.[383] In this contention, the Tribe has not raised a dispute with a specific portion of the Application that would lead this Board to question whether the license should be denied or conditioned. A general complaint about how the information is presented is not sufficient to raise a genuine dispute with the Application that is germane to the purpose of this licensing proceeding. Accordingly, the Tribe's Contention 6 is *not admitted.*

7. The Tribe's Contention 7

The Oglala Sioux states in Contention 7:

> Failure to include in the Application a reviewable plan for disposal of 11e2 Byproduct Material.[384]

The Oglala Sioux argues that Powertech's Application is deficient because plans for disposal of mill tailings "merely state that permanent disposal will occur"

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[379] *Id.* at 32-33.

[380] Tribe Petition at 29. *See also* 40 C.F.R. § 1502.8.

[381] 36 C.F.R. § 800.2(c)(2)(ii)(D).

[382] LBP-98-9, 47 NRC at 280.

[383] *Id.*

[384] Tribe Petition at 31.

and do not provide specifications for disposal, as is required by 10 C.F.R. Part 40, Appendix A.[385] The Oglala Sioux asserts that Powertech's Application should be rejected completely, without further inquiry, for this omission, as it allegedly violates NRC regulations and NEPA.[386] Under NEPA, the Oglala Sioux argues, an examination of all direct, indirect, and cumulative impacts of the proposed action must be executed.[387] According to the Oglala Sioux, Powertech's failure to identify the disposal facility or provide specifications for its disposal plans avoids this required examination, and the Application must therefore be rejected.[388]

Both Powertech and the NRC Staff oppose admission of Contention 7. Powertech argues that the Oglala Sioux mischaracterizes the requirements for a license application, and claims that Appendix A to Part 40 requires disposal of mill tailings at a licensed facility and does not require the information the Oglala Sioux is demanding.[389] Furthermore, Powertech asserts that the Application does provide a detailed discussion of offsite disposal of 11e(2) byproduct material, despite what the Oglala Sioux claims. Therefore, Powertech opposes admission of Contention 7 because it fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi).

The NRC Staff argues that Contention 7 fails to meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(iv) because the Oglala Sioux fails to identify an issue material to the findings the NRC must make in this licensing action.[390] The Staff maintains that 10 C.F.R. § 40.31(h) and Criterion 1 in Appendix A to Part 40, both cited by the Oglala Sioux in its Petition, do not require Powertech to provide more information than it has already provided in its Application.[391] Furthermore, the Staff asserts that NEPA does not require Powertech to be more specific about its disposal practices, mandating only "that the Staff consider the reasonably foreseeable environmental effects of the actions Powertech has proposed."[392] Therefore, according to the Staff, Contention 7 should be denied by the Board.

In its Reply, the Oglala Sioux argues that Powertech's and the NRC Staff's responses to Contention 7 are "contrary to facts known to Staff and Powertech and [are] contrary to established interpretations of NRC regulations."[393] The Oglala Sioux cites the issuance of an RAI by the NRC Staff as evidence that the

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[385] *Id.*

[386] *Id.*

[387] *Id.* at 33.

[388] *Id.*

[389] Powertech Answer to Tribe at 50-52.

[390] Staff Answer to Tribe at 39.

[391] *Id.* at 39-40.

[392] *Id.* at 40.

[393] Tribe Reply at 34.

information Powertech provided on 11e(2) byproduct material was incomplete to conduct the relevant analyses.[394] Further, the Oglala Sioux argues that the responses of Powertech and the NRC Staff establish that there is a genuine and material legal dispute with the Application because the Oglala Sioux disagrees with the NRC Staff's interpretation of 10 C.F.R. § 40.31(h) as not applying to in-situ facilities.[395] Finally, the Oglala Sioux argues that Powertech's and the NRC Staff's responses to Contention 7 address the merits of the contention and do not successfully dispute its admissibility in this proceeding.[396]

While we agree with the Tribe that the disposal of 11e(2) byproduct material is an issue that should be addressed more fully before a license is issued to Powertech, we do not agree the Tribe has shown that Powertech has, at this point in the proceeding, failed to comply with NRC or federal regulations. The Tribe points to 10 C.F.R. § 40.31(h) and Criterion 1 in Appendix A to Part 40 as support for its assertion that Powertech is required to include a specific plan for disposal of 11e(2) byproduct material in its Application. However, Commission precedent makes clear that 10 C.F.R. § 40.31(h) applies to uranium mills, and not to ISL facilities.[397] In fact, the Commission has held that, while Part 40 generally applies to ISL mining, Appendix A to Part 40, including Criterion 1, was "designed to address the problems related to mill tailings and not problems related to injection mining."[398] There are, however, certain safety provisions in Appendix A, such as Criterion 2, that are relevant and do apply to ISL mining.[399] Criterion 2, for instance, requires that "byproduct material from in situ extraction operations . . . must be disposed of at existing large mill tailings disposal sites . . . ."[400] Besides referring the Board to Appendix A, the Tribe has not identified a regulation that requires a disposal plan be included in an application. The Presiding Officer in *HRI* concluded that the principal regulatory standards for ISL applications are 10 C.F.R. § 40.32(c) and (d), "which mandate protection of public health and safety";[401] an exceedingly general requirement.

With regard to Part 40's applicability to ISL facilities, the NRC Staff often relies on guidance documents and license conditions when regulatory specificity

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[394] *Id.* at 34-35.

[395] *Id.* at 35.

[396] *Id.* at 36.

[397] *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 8 (1999) (*HRI*).

[398] *Id.* (citing *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-99-1, 49 NRC 29, 33 (1999)).

[399] *Id.*

[400] 10 C.F.R. Part 40, App. A, Criterion 2.

[401] *HRI,* CLI-99-22, 50 NRC at 9.

is lacking.[402] At oral argument, the NRC Staff stated that it is standard practice, and consistent with NUREG-1569, to require the applicant either to supply a specific disposal plan or to implement a license condition that deals with waste disposal.[403] Because the Tribe has not pointed to any regulation that requires this plan to be in the Application itself, the Board finds it is appropriate to look to NRC guidance to determine how Powertech is to proceed. Because the NRC guidance allows Powertech to deal with the issue of waste disposal in one of two ways (i.e., in its Application or as a license condition), the fact that the information is not in the Application is not fatal to the Application, as the Tribe contends. Accordingly, the Tribe fails to raise a genuine dispute with the Application, in contravention of 10 C.F.R. § 2.309(f)(1)(vi).

The Tribe also argues that a specific disposal plan must be included in Powertech's Application in order to comply with NEPA. We do not agree. It is settled law that an applicant is not bound by NEPA, but by NRC regulations in Part 51.[404] The NRC Staff, however, is bound by NEPA. At oral argument, the Staff recognized this obligation and conceded that NEPA "would require possibly an analysis by the Staff"[405] regarding waste disposal. If, at the time the Staff issues its environmental documents, the SEIS does not include an analysis of waste disposal, or if the Tribe feels the analysis is inadequate, the Tribe may file a contention at that time under 10 C.F.R. § 2.309(f)(2). Contention 7 is *inadmissible*.

The Board does recognize, however, the importance of planning for waste disposal at any NRC-regulated facility, and we are concerned that this issue need not be addressed until the license is issued. At that point, of course, if a condition dealing with 11e(2) byproduct material is not included in the license, the Tribe has no recourse because it cannot challenge the license at that time. Due to these concerns, the Board recommends that this issue be considered by the Commission (or Board) when it conducts the mandatory review and hearing that must be held in this case.[406]

8. The Tribe's Contention 8

The Oglala Sioux states in Contention 8:

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[402] *Id.*

[403] Tr. at 242.

[404] *Levy County,* CLI-10-2, 71 NRC at 34.

[405] Tr. at 240.

[406] 10 C.F.R. § 51.107(a). *See also Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-10, 70 NRC 51, 112 (2009).

Requiring the Tribe to formulate contentions before an EIS is released violates NEPA.[407]

The Oglala Sioux contends that the NRC procedures requiring the Oglala Sioux to formulate contentions before the Staff's NEPA document, the SEIS, is complete violate the "public participation and informed decision-making mandates of NEPA."[408] The Oglala Sioux claims that it is being denied the benefit of a complete NEPA analysis under present NRC procedures and that the NRC's allowance of additional contentions to be filed after the SEIS is issued[409] wastes resources and denies the public the opportunity to participate in the agency's decisionmaking process.[410]

Both Powertech and the NRC Staff oppose admission of Contention 8. Powertech asserts that Contention 8 is an impermissible attack on NRC regulations, in violation of 10 C.F.R. § 2.335 and is therefore not a proper contention for this proceeding.[411] Furthermore, Powertech submits that the Oglala Sioux will have an opportunity to participate in the environmental review process by submitting comments when the NRC Staff issues the draft SEIS.[412] In sum, Powertech claims that the Oglala Sioux's Contention 8 is inadmissible as an impermissible attack on NRC regulations and that Oglala Sioux's claims of an exclusion from the environmental review process are unfounded.[413]

Like Powertech, the NRC Staff argues that Contention 8 is inadmissible as an impermissible attack on NRC regulations, in violation of 10 C.F.R. § 2.335.[414] Also, the Staff argues that the NRC's hearing procedures "provide substantial opportunities for public involvement *apart from* the hearing process," such as participating in the public comment period.[415]

In its Reply, the Oglala Sioux maintains that Contention 8 is not an attack on NRC regulations, as argued by Powertech and the NRC Staff.[416] Instead, the Oglala Sioux argues that the present proceeding fails to comply with the CEQ regulations, which they assert the NRC is bound to follow.[417] Further, the Oglala Sioux takes issue with the fact that the "NRC Staff has recommended that

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[407] Tribe Petition at 34.
[408] *Id.* at 35.
[409] 10 C.F.R. § 2.309(f)(2).
[410] Tribe Petition at 36.
[411] Powertech Answer to Tribe at 54.
[412] *Id.* at 55.
[413] *Id.*
[414] Staff Answer to Tribe at 42.
[415] *Id.* (emphasis in original).
[416] Tribe Reply at 42.
[417] *Id.* at 43.

the Board make final rulings that prohibit admission of the Tribe's contentions, without the benefit of the required NEPA analysis."[418]

We agree with Powertech and the NRC Staff that Contention 8 is inadmissible. To begin, we note that the Oglala Sioux's main concern in this contention is that the NRC is not complying with CEQ regulations, which require that the NEPA process begin "at the earliest possible time."[419] As we understand it, the Tribe takes issue with the Commission's practice of requiring petitioners to file NEPA-based contentions contesting an applicant's ER, because the Staff's SEIS, the product of its NEPA review, is not ready at this stage of the proceeding. The Tribe argues that the NEPA review process is not conducted early enough in the proceeding to allow petitioners to file contentions on the completed SEIS, which is in violation of CEQ regulations. There are a number of reasons why the Board cannot accept this argument as the basis for an admissible contention.

First, while this agency gives substantial deference to CEQ regulations, it is not bound to follow them.[420] As an independent agency, the NRC has the authority to promulgate its own regulations implementing NEPA and is only bound by CEQ regulations when the NRC expressly adopts them.[421] The NRC has recognized its obligation to comply with NEPA, however, and has promulgated the regulations in Part 51, which govern "the consideration of the environmental impact of the licensing and regulatory actions of the agency."[422]

Secondly, Contention 8 constitutes an impermissible attack on NRC regulations, in contravention of 10 C.F.R. § 2.335. At oral argument, counsel for the Tribe stated that he was concerned with the way NRC's NEPA procedures were being used in the present proceeding, but conceded that he understood the Staff's NEPA review procedures are "not unique to this case."[423] Indeed, the regulations clearly state that a petitioner must file a NEPA contention challenging an applicant's ER *at the time the petitioner requests a hearing*.[424] Any challenge by the Tribe to this regulation is not litigable in this proceeding, and cannot be

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[418] *Id.* at 47.

[419] Tr. at 246.

[420] *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-06-19, 64 NRC 53, 62 n.3 (2006) (citing *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348 n.22 (2002)); *see also supra* note 275.

[421] *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 257 n.14 (2006); *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 154 (2005).

[422] *Limerick Ecology Action, Inc. v. NRC,* 869 F.2d 719, 725 (3d Cir. 1989).

[423] Tr. at 246.

[424] 10 C.F.R. § 2.309(f)(2) ("On issues arising under the National Environmental Policy Act, the petitioner shall file contentions based on the applicant's environmental report.").

admitted as a contention under 10 C.F.R. § 2.335.[425] Absent a showing of "special circumstances" under 10 C.F.R. § 2.335(b), which the Tribe has not made, this matter must be addressed through Commission rulemaking.[426]

Finally, we do not agree with the Tribe that current NRC procedures for filing NEPA-related contentions violate "public participation and informed decision-making mandates of NEPA."[427] NRC regulations provide opportunities for public involvement in the NEPA review process. For example, in this case the NRC Staff has stated that a draft SEIS will be issued, and will be circulated for public comment before the final SEIS is issued.[428] Additionally, the regulations allow for new or amended contentions to be filed by the Tribe in the event that "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."[429] These new or amended contentions are not required to meet a higher standard than original contentions filed under 10 C.F.R. § 2.309(f)(1), as long as the new or amended contentions are founded on data or conclusions in the EIS that are new and significantly different from those in the ER and are timely filed.[430]

For the foregoing reasons, the Board concludes that the Tribe's Contention 8 is *inadmissible*.

9. The Tribe's Contention 9

The Oglala Sioux states in Contention 9:

> Failure to consider connected actions.[431]

The Oglala Sioux states that Powertech's proposed ISL project is being considered by multiple federal agencies besides the NRC.[432] For example, according to the Oglala Sioux, Powertech has applied to the Environmental Protection Agency

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[425] *See also Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 272 (2010); *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 129 (2004).

[426] *North Anna,* LBP-04-18, 60 NRC at 270.

[427] Tribe Petition at 35.

[428] Staff Answer to Tribe at 42; Tr. at 248.

[429] 10 C.F.R. § 2.309(f)(2).

[430] The Board takes this opportunity to remind the NRC Staff of its increased notification commitments to Native American tribes as spelled out in the "U.S. Nuclear Regulatory Commission's Strategy for Outreach and Communication with Indian Tribes Potentially Affected by Uranium Recovery Sites" (ADAMS Accession No. ML092110101), especially as it pertains to environmental review.

[431] Tribe Petition at 36.

[432] *Id.*

(EPA) for a Class V deep injection well permit for injection of hazardous materials.[433] The Oglala Sioux argues that the NRC has failed to consider the actions that will be taken by other agencies in its review of Powertech's Application, in violation of NEPA.[434] The Oglala Sioux submits that the Class V permit process is a "connected action" and needs to be considered by the NRC under NEPA.[435] In the alternative, the Oglala Sioux argues that the Class V permit process must still be analyzed in the NRC's cumulative impact analysis.[436]

Both Powertech and the NRC Staff oppose admission of Contention 9. Powertech argues that the Oglala Sioux has failed to cite any regulations in 10 C.F.R. Part 51 that require the NRC Staff to coordinate its NEPA review of Powertech's Application with any other regulatory agency, such as the EPA.[437] Further, Powertech argues that the issue of underground injection of hazardous waste is wholly independent of NRC's review of Powertech's Application, because whether the EPA grants Powertech a Class V permit or not has no bearing on NRC Staff's s review.[438] Finally, Powertech asserts that Contention 9 is not ripe for consideration by the Board at this time because the NRC has only just begun to solicit EPA's input on the licensing of ISL facilities.[439]

Like Powertech, the NRC Staff argues that Contention 9 is not ripe for the Board's review at this time because the NRC Staff has not yet issued a draft or final SEIS for Powertech's proposed ISL facility.[440] According to the NRC Staff, because the Oglala Sioux is challenging NRC's ongoing NEPA review, Contention 9 must be rejected because it fails to comply with 10 C.F.R. § 2.309(f)(1)(vi).[441] Finally, the NRC Staff asserts that it will in fact be consulting with other agencies regarding Powertech's proposed action.[442]

In its Reply, the Oglala Sioux alleges that Powertech and the NRC Staff have provided no authority to rebut Contention 9.[443] The Oglala Sioux cites 10 C.F.R. § 51.10(b)(2) as requiring the participation of other agencies as cooperating agencies in the NEPA process.[444] As for ripeness, the Oglala Sioux argues that NEPA regulations require contentions to be pled at the earliest stages of a

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[433] *Id.* at 37.
[434] *Id.*
[435] *Id.*
[436] *Id.*
[437] Powertech Answer to Tribe at 56.
[438] *Id.* at 57.
[439] *Id.*
[440] Staff Answer to Tribe at 42.
[441] *Id.* at 43.
[442] *Id.*
[443] Tribe Reply at 47.
[444] *Id.*

proceeding, and the NRC Staff's SEIS will not be issued until the latter end of these proceedings, in violation of NEPA regulations.[445] Finally, the Oglala Sioux argues that Powertech is mistaken in its assertion that other agencies must request cooperating status from the NRC.[446] On the contrary, according to the Oglala Sioux, as lead agency the NRC must request participation at the earliest possible time in the review process.[447]

The Board agrees with Powertech and the NRC Staff that Contention 9 is inadmissible. We conclude that Contention 9 presents the same issues of prematurity found in the Tribe's Contention 1. In the context of the NEPA review process, the duty of the lead agency to consider the actions of other federal agencies involved in a licensing action, is the responsibility of the NRC and not of the applicant.[448] Accordingly, the issue raised in Contention 9 will not ripen until the NRC Staff has completed its NEPA review.[449] The Tribe, as well as the public, will be given an opportunity to comment on the NRC Staff's draft SEIS. Additionally, after the NRC Staff has issued its draft or final SEIS, the Tribe will have the opportunity to file new or amended contentions under 10 C.F.R. § 2.309(f)(2) if it believes the Staff has not properly carried out its consultation responsibility.[450] Accordingly, Contention 9 is *inadmissible.*

10. The Tribe's Contention 10

The Oglala Sioux states in Contention 10:

> The Environmental Report does not examine impacts of a direct tornado strike.[451]

The Oglala Sioux argues that CEQ guidelines require agencies in their NEPA analysis to "consider low-probability environmental impacts with catastrophic consequences, if those impacts are reasonably foreseeable."[452] The Oglala Sioux claims that tornado strikes are relatively common in the Black Hills region of South Dakota, but that Powertech has failed to consider the impact of these strikes in its Application.[453] The Oglala Sioux claims that an analysis of the impacts of a

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[445] *Id.* at 48.
[446] *Id.*
[447] *Id.*
[448] *Levy County,* CLI-10-2, 71 NRC at 34.
[449] *See, e.g., Crow Butte I,* CLI-09-12, 69 NRC at 566; *Crow Butte II,* CLI-09-9, 69 NRC at 351.
[450] *Crow Butte II,* CLI-09-9, 69 NRC at 351; Tr. at 254.
[451] Tribe Petition at 38.
[452] *Id.* (internal citations omitted).
[453] *Id.*

tornado strike must be considered by Powertech and the NRC Staff in its NEPA analysis in order to comply with federal regulations.[454]

Both Powertech and the NRC Staff oppose admission of Contention 10. First, Powertech points out that the CEQ guidelines are not binding on the NRC and that the Oglala Sioux has failed to identify any NRC regulations that would support its argument that Powertech's Application is inadequate.[455] Powertech also asserts that its Application does in fact include information on tornado strikes and concludes "that no design or operational changes would be required for an ISL facility, but that chemical storage tanks should be located far enough apart to prevent contact during a potential tornado."[456] Finally, Powertech argues that the Oglala Sioux's data regarding tornado strikes in the Black Hills area is irrelevant because the data actually refer to tornado strikes in Oklahoma.[457]

The NRC Staff argues that Contention 10 does not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi) because Powertech's Application includes an analysis of tornado strikes and the Oglala Sioux does not challenge Powertech's analysis.[458] Further, the NRC Staff argues that Powertech is not required by law to address tornado strikes. It claims that the Oglala Sioux has not cited any NRC regulations that would require Powertech to include this type of analysis and argues that tornado strikes are not reasonably foreseeable, and therefore not required to be considered under NEPA.[459]

In its Reply, the Oglala Sioux rebuts the NRC Staff's claim that the threat of a tornado strike is "low" by stating that no fewer than nine tornadoes have struck Custer County and twenty-eight have struck Fall River County since 1950.[460] Moreover, the Oglala Sioux maintains that it did not rely on Oklahoma-based information for Contention 10, but merely cited Oklahoma tornado statistics to show that the Fansteel plant had been affected by a tornado, thereby making tornado strikes on facilities foreseeable.[461] Finally, the Oglala Sioux argues that Powertech's statement that the tornado-related information already in the Application is "good enough" provides evidence of a genuine dispute with the Application and supports admission of Contention 10.[462]

The Board determines that Contention 10 is inadmissible. Powertech has cited portions of its Application in which it discusses the possibility of a tornado strike

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[454] *Id.* at 39.

[455] Powertech Answer to Tribe at 58.

[456] *Id.*

[457] *Id.* at 59.

[458] Staff Answer to Tribe at 44.

[459] *Id.* at 44-45.

[460] Tribe Reply at 49.

[461] *Id.* at 50.

[462] *Id.*

and determined that no operational design changes would be necessary should such a strike occur.[463] The Tribe does not dispute this determination in Contention 10, stating merely that tornado strikes are reasonably foreseeable and not considered by Powertech in its Application. Because the Tribe does not challenge the analyses of tornado strikes that do appear in Powertech's Application, the Tribe does not meet the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1)(vi). Accordingly, the Board *denies* admission of Contention 10.

VI. SELECTION OF HEARING PROCEDURES

A. Legal Standards

As required by 10 C.F.R. § 2.310(a), upon admission of a contention in a licensing proceeding, the Board must identify the specific hearing procedures to be used to settle the contention. NRC regulations provide for a number of different hearing procedures, two of which are relevant here.[464] First, there is Subpart G,[465] which is mandated for certain proceedings,[466] and establishes NRC "Rules for Formal Adjudications," in which parties are permitted to "propound interrogatories, take depositions, and cross-examine witnesses without leave of the Board."[467] Second, there is Subpart L[468] which provides for more "informal" proceedings in which discovery is generally prohibited (except for (1) specified mandatory disclosures under 10 C.F.R. § 2.336(f), (a), and (b); and (2) the mandatory production of the hearing file under 10 C.F.R. § 2.1203(a)).[469] Under Subpart L, the Board has the primary responsibility for questioning the witnesses at any evidentiary hearing.[470]

B. Ruling

The Board concludes that, at this juncture, the Subpart L hearing procedures

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[463] Tr. at 272.

[464] If the hearing on a contention is "expected to take no more than two (2) days to complete," 10 C.F.R. § 2.310(h)(1), the Board can impose the Subpart N procedures for "Expedited Proceedings with Oral Hearings" specified at 10 C.F.R. § 2.1400-1407. These procedures are highly truncated, but may prove appropriate for certain contentions at a later stage.

[465] 10 C.F.R. Part 2.

[466] *See, e.g., id.* § 2.310(d).

[467] *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 201-02 (2006).

[468] 10 C.F.R. Part 2.

[469] *Id.* § 2.1203(d).

[470] *Id.* § 2.1207(b)(6).

will be used to adjudicate each of the contentions we have admitted. We reach this result as follows. First, we conclude that there has been no showing under 10 C.F.R. § 2.310(d) that the Subpart G procedures are *mandated* for any of the admitted contentions. Second, exercising our discretion under 10 C.F.R. § 2.310(a), we have seen no reason or need to apply the Subpart G procedures to any of the admitted contentions. We therefore rule that, for the time being, the procedures of Subpart L will be used for the adjudication of each of the admitted contentions.[471] This determination is, of course, subject to reconsideration should there be reason to do so at a later date.

VII. CONCLUSION

Based on the foregoing, it is hereby ORDERED as follows:

A. Consolidated Petitioners Susan Henderson, Dayton Hyde, David Frankel, CWA, and ARM are admitted as parties in this proceeding, and a Subpart L hearing is granted with respect to the following contentions, as limited and reworded by the Licensing Board:

> Contention D — Powertech's presentation and analysis of baseline water quality data in its Application is inadequate. Further, Powertech's analysis of aquifer confinement fails to include an analysis of how artesian and horizontal flow could impact surrounding aquifers and surface waters.
>
> Contentions E (merged with J) — The lack of adequate confinement of the host Inyan Kara aquifer makes the proposed operation inimical to public health and safety in violation of section 40.31(d). Further, Applicant's failure to describe faults and fractures between aquifers, through which the groundwater can spread uranium, thorium, radium 226 and 228, arsenic, and other heavy metals, violates section 51.45(c) and (e).
>
> Contention K — The Application is not in conformance with 10 C.F.R. § 40.9 and 10 C.F.R. § 51.45 because the Application does not provide analyses that are adequate, accurate, and complete in all material respects to demonstrate that cultural and historic resources . . . are identified and protected pursuant to section 106 of the National Historic Preservation Act. As a result, the Application fails to comply with Section 51.60 . . . .

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[471] The selection of hearing procedures for contentions at the outset of a proceeding is not immutable because, *inter alia,* the availability of Subpart G procedures under 10 C.F.R. § 2.310(d) depends critically on whether the credibility of eyewitnesses is important in resolving a contention, and witnesses relevant to each contention are not identified, under 10 C.F.R. § 2.336(a)(1), until *after* contentions are admitted. *See Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 272 (2007); *see also* 10 C.F.R. § 2.1402(b).

B. Consolidated Petitioners Gary Heckenlaible, Lilias Jones Jarding, and Theodore Ebert are denied party status in this proceeding. Further, the Board finds inadmissible the following contentions set forth by Consolidated Petitioners: Contentions A, B, C, F G, H, and I.

C. The Oglala Sioux Tribe is admitted as a party in this proceeding, and a Subpart L hearing is granted with respect to the following contentions, as limited and reworded by the Licensing Board:

> Contention 1 — Powertech's Application is deficient because it fails to address adequately protection of historical and cultural resources.
>
> Contention 2 — Failure to include necessary information for adequate determination of baseline ground water quality.
>
> Contention 3 — Failure to include adequate hydrogeological information to demonstrate ability to contain fluid migration.
>
> Contention 4 — Inadequate analysis of Ground Water Quantity Impacts.

D. The Board finds inadmissible the following contentions set forth by the Oglala Sioux Tribe: Contentions 5, 6, 7, 8, 9, and 10.

E. Within ten (10) days of the issuance of this Order, Petitioners David Frankel and Susan Henderson must elect to participate in this proceeding as individuals or to have their interests represented by CWA or ARM.

F. The Licensing Board will hold a telephone conference with the parties in which we will discuss a schedule of further proceedings in this matter.

G. This Order is subject to appeal to the Commission in accordance with the provisions of 10 C.F.R. § 2.311. Any petitions for review meeting applicable

requirements set forth in that section must be filed within ten (10) days of service of this Memorandum and Order.

THE ATOMIC SAFETY AND
LICENSING BOARD[472]

William J. Froehlich, Chairman
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Dr. Mark O. Barnett
ADMINISTRATIVE JUDGE

Rockville, Maryland
August 5, 2010

[472] Copies of this Memorandum and Order were sent this date by the agency's E-Filing system to the counsel/representatives for (1) Powertech USA, Inc.; (2) Consolidated Petitioners; (3) the Oglala Sioux Tribe; and (4) NRC Staff.

APPENDIX A
Contention I — Basis-by-Basis Analysis

Basis	Subparts of 10 C.F.R. § 2.309(f)(1) not met	Element(s) not met
Basis 1	(v), (vi)	Failure to provide support and no genuine dispute
Basis 2	(vi)	No genuine dispute
Basis 3	(v), (vi)	Failure to provide support and no genuine dispute
Basis 4	(v), (vi)	Failure to provide support and no genuine dispute
Basis 5	(v), (vi)	Failure to provide support and no genuine dispute
Basis 6	(v)	Failure to provide support
Basis 7	(v), (vi)	Failure to provide support and no genuine dispute
Basis 8	(v), (vi)	Failure to provide support and no genuine dispute
Basis 9	(v), (vi)	Failure to provide support and no genuine dispute
Basis 10	(v)	Failure to provide support
Basis 11	(v), (vi)	Failure to provide support and no genuine dispute
Basis 12	(iv), (v), (vi)	Not shown as material, failure to provide support, and no genuine dispute
Basis 13	(v), (vi)	Failure to provide support and no genuine dispute
Basis 14	(v), (vi)	No genuine dispute and failure to provide support
Basis 15	(iii), (v), (vi)	Outside the scope of the proceeding, failure to provide support, and no genuine dispute
Basis 16	(v), (vi)	Failure to provide support and no genuine dispute
Basis 17	(v), (vi)	Failure to provide support and no genuine dispute
Basis 18	(v), (vi)	Failure to provide support and no genuine dispute

Basis	Subparts of 10 C.F.R. § 2.309(f)(1) not met	Element(s) not met
Basis 19	(v), (vi)	Failure to provide support and no genuine dispute
Basis 20	(v), (vi)	Failure to provide support and no genuine dispute
Basis 21	(iv), (v), (vi)	Not shown as material, failure to provide support, and no genuine dispute
Basis 22	(iv), (v), (vi)	Not shown as material, failure to provide support and no genuine dispute
Basis 23	(v), (vi)	Failure to provide support and no genuine dispute
Basis 24	(v), (vi)	Failure to provide support and no genuine dispute
Basis 25	(v), (vi)	Failure to provide support and no genuine dispute
Basis 26	(v), (vi)	Failure to provide support and no genuine dispute
Basis 27	(v), (vi)	Failure to provide support and no genuine dispute
Basis 28	(v), (vi)	Failure to provide support and no genuine dispute
Basis 29	(v), (vi)	Failure to provide support and no genuine dispute
Basis 30	(v), (vi)	Failure to provide support and no genuine dispute
Basis 31	(v), (vi)	Failure to provide support and no genuine dispute
Basis 32	(v), (vi)	Failure to provide support and no genuine dispute
Basis 33	(vi)	No genuine dispute
Basis 34	(vi)	No genuine dispute
Basis 35	(iv), (v), (vi)	Not shown to be material, failure to provide support, and no genuine dispute
Basis 36	(v), (vi)	Failure to provide support and no genuine dispute
Basis 37	(v), (vi)	Failure to provide support and no genuine dispute
Basis 38	(v), (vi)	Failure to provide support and no genuine dispute

Basis	Subparts of 10 C.F.R. § 2.309(f)(1) not met	Element(s) not met
Basis 39	(v), (vi)	Failure to provide support and no genuine dispute
Basis 40	(v), (vi)	Failure to provide support and no genuine dispute
Basis 41	(v), (vi)	Failure to provide support and no genuine dispute
Basis 42	(v), (vi)	Failure to provide support and no genuine dispute
Basis 43	(v), (vi)	Failure to provide support and no genuine dispute
Basis 44	(v), (vi)	Failure to provide support and no genuine dispute
Basis 45	(v), (vi)	Failure to provide support and no genuine dispute
Basis 46	(v), (vi)	Failure to provide support and no genuine dispute
Basis 47	(v), (vi)	Failure to provide support and no genuine dispute
Basis 48	(v), (vi)	Failure to provide support and no genuine dispute
Basis 49	(v)	Failure to provide support
Basis 50	(i), (iv), (v), (vi)	Not shown to be material, failure to provide support, no genuine dispute, and failure to raise an issue of law or fact
Basis 51	(v), (vi)	Failure to provide support and no genuine dispute
Basis 52	(v), (vi)	Failure to provide support and no genuine dispute
Basis 53	(v), (vi)	Failure to provide support and no genuine dispute
Basis 54	(v), (vi)	Failure to provide support and no genuine dispute
Basis 55	(v), (vi)	Failure to provide support and no genuine dispute
Basis 56	(v), (vi)	Failure to provide support and no genuine dispute
Basis 57	(v), (vi)	Failure to provide support and no genuine dispute

Basis	Subparts of 10 C.F.R. § 2.309(f)(1) not met	Element(s) not met
Basis 58	(iii), (v), (vi)	Not within the scope of the proceeding, failure to provide support, and no genuine dispute
Basis 59	(v)	Failure to provide support
Basis 60	(v), (vi)	Failure to provide support and no genuine dispute
Basis 61	(v)	Failure to provide support
Basis 62	(v)	Failure to provide support
Basis 63	(v)	Failure to provide support
Basis 64	(v)	Failure to provide support
Basis 65	(v), (vi)	Failure to provide support and no genuine dispute
Basis 66	(v)	Failure to provide support
Basis 67	(iv), (v), (vi)	Not shown to be material, failure to provide support, and no genuine dispute
Basis 68	(v), (vi)	Failure to provide support and no genuine dispute
Basis 69	(v), (vi)	Failure to provide support and no genuine dispute
Basis 70	(v), (vi)	Failure to provide support and no genuine dispute
Basis 71	(vi)	No genuine dispute
Basis 72	(iv), (v), (vi)	Not shown to be material, failure to provide support, and no genuine dispute
Basis 73	(v), (vi)	Failure to provide support and no genuine dispute
Basis 74	(v)	Fail to provide support
Basis 75	(v), (vi)	Failure to provide support and no genuine dispute
Basis 76	(v)	Failure to provide support
Basis 77	(v)	Failure to provide support
Basis 78	(v), (vi)	Failure to provide support and no genuine dispute
Basis 79	(v), (vi)	Failure to provide support and no genuine dispute
Basis 80	(v), (vi)	Failure to provide support and no genuine dispute
Basis 81	(v)	Failure to provide support

Basis	Subparts of 10 C.F.R. § 2.309(f)(1) not met	Element(s) not met
Basis 82	(v), (vi)	Failure to provide support and no genuine dispute
Basis 83	(v), (vi)	Failure to provide support and no genuine dispute
Basis 84	(v), (vi)	Failure to provide support and no genuine dispute
Basis 85	(v), (vi)	Failure to provide support and no genuine dispute
Basis 86	(v), (vi)	Failure to provide support and no genuine dispute
Basis 87	(v), (vi)	Failure to provide support and no genuine dispute
Basis 88	(iv), (v), (vi)	Not shown to be material, failure to provide support, and no genuine dispute
Basis 89	(v), (vi)	Failure to provide support and no genuine dispute
Basis 90	(v), (vi)	Failure to provide support and no genuine dispute
Basis 91	(v)	Failure to provide support
Basis 92	(iv), (v)	Not shown to be material and failure to provide support
Basis 93	(v), (vi)	Failure to provide support and no genuine dispute
Basis 94	(v), (vi)	Failure to provide support and no genuine dispute
Basis 95	(iv), (v), (vi)	Not shown to be material, failure to provide support, and no genuine dispute
Basis 96	(v), (vi)	Failure to provide support and no genuine dispute
Basis 97	(v), (vi)	Failure to provide support and no genuine dispute
Basis 98	(v), (vi)	Failure to provide support and no genuine dispute
Basis 99	(v), (vi)	Failure to provide support and no genuine dispute
Basis 100	(v), (vi)	Failure to provide support and no genuine dispute

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Abbs v. Sullivan, 963 F.2d 918, 924 (7th Cir. 1992)
a winner cannot appeal a judgment; CLI-10-17, 72 NRC 44 n.240 (2010)

Addamax Corp. v. Open Software Foundation, Inc., 148 F.R.D. 462, 467-68 (D. Mass. 1993)
the concept of control extends to situations in which the party has the practical ability to obtain materials in the possession of another, even if the party cannot compel the other person or entity to produce the requested materials; LBP-12-23, 72 NRC 708 n.23 (2010)

Advanced Medical Systems, Inc. (One Factory Row, Geneva, Ohio 44041), CLI-93-22, 38 NRC 98, 102 (1993)
any doubt as to the existence of a genuine issue of material fact is resolved against the proponent of summary disposition; LBP-10-20, 72 NRC 579 (2010)
because the burden is on the summary disposition movant, the board must examine the record in the light most favorable to the nonmoving party and give the nonmoving party the benefit of all favorable inferences that can be drawn from the evidence; LBP-10-20, 72 NRC 579 (2010)
summary disposition movant bears the burden of demonstrating that there is no genuine issue as to any material fact; LBP-10-20, 72 NRC 579 (2010)
the Commission generally applies the same standard for summary disposition that federal courts apply when ruling on motions for summary judgment under Rule 56 of the Federal Rules of Civil Procedure; LBP-10-20, 72 NRC 579 (2010)

Aharon Ben-Haim, CLI-99-14, 49 NRC 361, 364 (1999)
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on appeal, the Commission is loath to address complaints concerning a board's skepticism of expert witness's testimony, given that the Commission lacks the board's ability to observe the demeanor of the parties' expert witnesses in general and petitioner's witness in particular; CLI-10-17, 72 NRC 46-47 (2010)

Aharon Ben-Haim, CLI-99-14, 49 NRC 361, 364 & n.2 (1999)
licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 225 n.64 (2010)

Akiak Native Community v. U.S. Postal Service, 213 F.3d 1140, 1148 (9th Cir. 2000)
it is not enough to consider only the proposed action and the no-action alternative in an environmental assessment; CLI-10-18, 72 NRC 84 (2010)

Alabama v. Shalala, 124 F. Supp. 2d 1250, 1263-64 (M.D. Ala. 2000)
when an adjudicating agency retroactively applies a new legal standard that significantly alters the rules of the game, the agency is obliged to give litigants proper notice and a meaningful opportunity to adjust; CLI-10-23, 72 NRC 224 (2010)

Alaska v. Andrus, 580 F.2d 465, 474 (D.C. Cir. 1978), *vacated in part as moot sub nom. Western Oil & Gas Association v. Alaska,* 439 U.S. 922 (1978)
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AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124, 128-32 (2007)
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AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 468 (2008)
a license renewal applicant's use of an aging management program identified in the Generic Aging Lessons Learned Report constitutes reasonable assurance that it will manage the targeted aging effect during the renewal period; CLI-10-17, 72 NRC 19 n.85, 36, 37 (2010); LBP-10-15, 72 NRC 328 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station, CLI-08-23, 68 NRC 461, 476-77, 481-82, 486 (2008)
the manner in which the Staff conducts its review is outside the scope of a proceeding; LBP-10-17, 72 NRC 512 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 663 (2008)
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for any material, there is a characteristic number of stress cycles that it can withstand at a particular applied stress level before fatigue failure occurs; CLI-10-17, 72 NRC 14 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 664 n.24 (2008)
some license renewal applicants have sought to satisfy more than one of the three subsections of 10 C.F.R. 54.21(c)(1)(i)-(iii); CLI-10-17, 72 NRC 18 n.79 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 665 (2008)
the standard review plan presents one acceptable methodology for calculating the environmentally adjusted cumulative usage factor; CLI-10-17, 72 NRC 20 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 675 (2008)
the Commission is generally disinclined to upset fact-driven licensing board determinations; CLI-10-17, 72 NRC 30 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 676 & n.73 (2008)
discovery is not permitted before a petition to intervene has been granted; CLI-10-24, 72 NRC 463 n.70 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 259 (2009)
as an exercise of its inherent supervisory authority over adjudicatory proceedings, the Commission directs the board to provide the Commission with a status report outlining the board's timetable for resolving all pending matters; CLI-10-18, 72 NRC 96 (2010)
in the NRC adjudicatory process, the licensing board's principal role is to carefully review all of the evidence, including testimony and exhibits, and to resolve any factual disputes; CLI-10-18, 72 NRC 72 (2010)
legal questions are reviewed de novo and will be reversed if a licensing board's legal rulings are a departure from or contrary to established law; CLI-10-18, 72 NRC 73 (2010)
on appeal, the Commission defers to a board's factual findings, correcting only clearly erroneous findings where the Commission has strong reason to believe that a board has overlooked or misunderstood important evidence; CLI-10-18, 72 NRC 73 (2010)
the standard of clear error for overturning a board's factual findings is quite high; CLI-10-18, 72 NRC 73 (2010)
weighing of evidence and testimony is inherent in, and at the very heart of, adjudicatory fact-finding and is an area where the Commission has traditionally deferred to licensing boards; CLI-10-23, 72 NRC 241 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009)
although a board may view petitioner's supporting information in a light favorable to the petitioner, petitioner (not the board) is required to supply all of the required elements for a valid intervention

petition; CLI-10-20, 72 NRC 192 n.39 (2010); LBP-10-15, 72 NRC 278 (2010); LBP-10-16, 72 NRC 394 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 271-72 (2009)

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-10-27, 72 NRC 496 (2010)

NRC's expanding adjudicatory docket makes it critically important that parties comply with NRC pleading requirements and that the board enforce those requirements; CLI-10-27, 72 NRC 496 (2010)

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-10-27, 72 NRC 496 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-7, 63 NRC 188, 199-201 (2006), *aff'd,* CLI-07-8, 65 NRC 124 (2007)

terrorist attacks are outside the scope of NEPA; LBP-10-15, 72 NRC 319 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-16, 63 NRC 737, 744-45 & n.12 (2006)

if a contention meets the 10 C.F.R. 2.309(f)(2) criteria, it is timely and the intervenor proffering the contention need not also make a showing under 10 C.F.R. 2.309(c); LBP-10-14, 72 NRC 108 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 237, 240-44 (2006)

boards have legal authority to reformulate contentions; LBP-10-16, 72 NRC 403 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 253 (2006)

challenges to applicant's corrective action and quality assurance programs are outside the scope of license renewal; LBP-10-15, 72 NRC 327 (2010)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-08-12, 68 NRC 5, 21 (2008)

as with all contentions of omission, if applicant supplies the missing information or performs the omitted analysis, the contention is moot; LBP-10-14, 72 NRC 109 n.31 (2010)

Anderson v. Bessemer City, 470 U.S. 564, 573-76 (1985)

on appeal, the Commission defers to a board's factual findings, correcting only clearly erroneous findings, i.e., findings not even plausible in light of the record viewed in its entirety; CLI-10-18, 72 NRC 73 (2010)

to show clear error, appellant must demonstrate that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-23, 72 NRC 225 (2010)

Andrew Siemaszko, CLI-06-16, 63 NRC 708, 718-19 (2006)

on appeal, the Commission is loath to address complaints concerning a board's skepticism of expert witness testimony, given that the Commission lacks the Board's ability to observe the demeanor of the parties' expert witnesses in general and petitioner's witness in particular; CLI-10-17, 72 NRC 46-47 (2010)

Andrus v. Sierra Club, 442 U.S. 347, 356-58 (1979)

Council on Environmental Quality regulations receive substantial deference from federal courts in interpreting the requirements of NEPA; LBP-10-16, 72 NRC 418 n.275 (2010)

Animal Defense Council v. Hodel, 840 F.2d 1432, 1439 (9th Cir. 1988)

where the information in the initial environmental impact statement is so incomplete or misleading that the decisionmaker and the public cannot make an informed comparison of the alternatives, revision of an EIS may be necessary to provide a reasonable, good-faith, and objective presentation of the subjects required by NEPA; LBP-10-24, 72 NRC 762, 763 (2010)

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

failure to comply with any of the requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi) is grounds for dismissing a contention; LBP-10-21, 72 NRC 651 (2010)

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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-10-21, 72 NRC 651 (2010)

Arthur Andersen LLP v. United States, 544 U.S. 696, 705 (2005)
concerning criminal guilt, the words "knowledge" and "knowingly" are normally associated with awareness, understanding, or consciousness; CLI-10-23, 72 NRC 223 (2010)

Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97 (1983)
publication of an environmental impact statement gives the public the assurance that the agency has indeed considered environmental concerns in its decisionmaking process and provides a springboard for public comment; LBP-10-24, 72 NRC 763 (2010)

Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 99 n.12 (1983)
the Supreme Court has expressly left open the issue of whether Council on Environmental Quality regulations are binding on the NRC; LBP-10-16, 72 NRC 418 n.275 (2010)

Baltimore Gas & Electric Co. (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 342 (1998)
in the interest of efficient case management and prompt resolution of adjudications, the Commission has generally enforced the 10-day deadline for appeals strictly, excusing it only in unavoidable and extreme circumstances; CLI-10-26, 72 NRC 476 (2010)

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 have no precedential effect; CLI-10-29, 72 NRC 563 n.36 (2010); CLI-10-30, 72 NRC 569 (2010)

Bartley v. Isuzu Motors, Ltd., 151 F.R.D. 659, 660-61 (D. Colo. 1993)
computer modeling and all of the inputs, outputs, and software associated with it are within the scope of discovery; LBP-12-23, 72 NRC 704 n.15 (2010)

Bering Strait Citizens for Responsible Resource Development v. U.S. Army Corps of Engineers, 524 F.3d 938, 953 (9th Cir. 2008)
an agency, when preparing an environmental assessment, must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decisionmaking process; CLI-10-18, 72 NRC 71, 93 (2010)

Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1213 (9th Cir. 1998)
under the National Environmental Policy Act, general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided; CLI-10-18, 72 NRC 74 (2010)

Board of County Supervisors v. Scottish & York Insurance Services, 763 F.2d 176, 179 (4th Cir. 1985)
issues not decided by special verdict are difficult to decipher for collateral estoppel purposes because of the uncertainty whether the precise issue was actually determined in the prior criminal case; CLI-10-23, 72 NRC 253 n.218 (2010)

Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228-29 (9th Cir. 1988)
even when a proposed action does not require preparation of an environmental impact statement, the consideration of alternatives remains critical to the goals of NEPA; CLI-10-18, 72 NRC 75 (2010)

Bonds v. Snapper Power Equipment Co., 935 F.2d 985, 988 (8th Cir. 1991)
the civil law concept of "assumption of risk" requires not merely general knowledge of a risk but also that the risk assumed be specifically known, understood, and appreciated; CLI-10-23, 72 NRC 223 (2010)

Boston Edison Co. (Pilgrim Nuclear Power Station), ALAB-816, 22 NRC 461, 466 (1985)
even if all parties are inclined to waive the tardiness, the board nevertheless is duty-bound to deny a petition on its own initiative unless it is persuaded that, on balance, the lateness factors point in the opposite direction; LBP-10-17, 72 NRC 508 n.21 (2010)

Boston Edison Co. (Pilgrim Nuclear Power Station), ALAB-816, 22 NRC 461, 468 n.28 (1985)
because appellant submitted no offer of proof, its case could be so weak that the denial of a right to reply by the licensing board would have been harmless error; CLI-10-23, 72 NRC 246 (2010)

parties taking appeals on purely procedural points are expected to explain precisely what injury to them was occasioned by the asserted error; CLI-10-23, 72 NRC 245 n.175 (2010)

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915-17 (2009)

in proceedings involving nuclear power reactors, petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and redressability if petitioner lives within 50 miles of the proposed facility; LBP-10-15, 72 NRC 276 (2010)

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-09-4, 69 NRC 170, 194-95 (2009)

the requirement under 10 C.F.R. 2.309(f)(1)(v) that contentions be supported by alleged facts or expert opinion 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-10-14, 72 NRC 129 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), ALAB-837, 23 NRC 525, 546-48 (1986)

deferral of review of board denial of rule waiver petition did not cause irreparable injury; CLI-10-29, 72 NRC 562 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 386 & n.6 (2001), *petition for review denied, Orange County v. NRC,* 47 Fed. App'x 1, 2002 WL 31098379 (D.C. Cir. 2002)

licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 225 n.64 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-99-25, 50 NRC 25, 31 (1999)

petitioners are not required to demonstrate their asserted injury with certainty at the contention admission stage, or to provide extensive technical studies in support of their standing argument; LBP-10-16, 72 NRC 388 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), LBP-01-9, 53 NRC 239, 250 (2001)

although the Federal Rules of Evidence are not mandated for NRC adjudicatory proceedings, the Commission has endorsed the use of the FRE as guidance for the boards with the express proviso that boards must apply the Part 2 rules with greater flexibility than the FRE; LBP-12-23, 72 NRC 705 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-79-5, 9 NRC 607, 609 (1979)

inherent in any forecast of future electric power demands is a substantial margin of uncertainty; LBP-10-24, 72 NRC 748, 749 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-79-5, 9 NRC 607, 609-10 (1979)

long-range forecasts for future electric power demands are especially uncertain in that they are affected by trends in usage, increasing rates, demographic changes, industrial growth or decline, and the general state of the economy, among others; LBP-10-24, 72 NRC 776 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516 (1980)

boards do not direct the Staff in the performance of its administrative functions; LBP-10-17, 72 NRC 513 (2010)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Units 1, 2, 3, and 4), CLI-80-12, 11 NRC 514, 516-17 (1980)

as an exercise of the Commission's inherent supervisory authority over adjudicatory proceedings, the Commission directs the board to provide the Commission with a status report outlining the board's timetable for resolving all pending matters; CLI-10-18, 72 NRC 96 (2010)

Center for Biological Diversity v. National Highway Traffic Safety Administration, 538 F.3d 1172, 1217-18 (9th Cir. 2008)

the agency must give full and meaningful consideration to all reasonable alternatives under NEPA; CLI-10-18, 72 NRC 75 (2010)

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Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 197 (D.C. Cir. 1991)
if issuing a license involves oversight of a private project rather than a federally sponsored project, the agency is entitled to give the applicant's preferences substantial weight when considering project design alternatives; LBP-10-14, 72 NRC 110 (2010)

Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 199 (D.C. Cir. 1990), *cert. denied,* 502 U.S. 994 (1991)
project goals are to be determined by the applicant, not the agency; CLI-10-18, 72 NRC 78-79 (2010)

Citizens Association for Sound Energy v. NRC, 821 F.2d 725, 730 (D.C. Cir. 1987)
administrative regularity in the regulatory process is assumed, and review of the operating license application takes place independently of that associated with plant construction; CLI-10-29, 72 NRC 562 (2010)

Citizens Awareness Network, Inc. v. NRC, 391 F.3d 338, 344-45, 350 (1st Cir. 2004)
in a Subpart L proceeding, mandatory disclosure is the only form of discovery allowed, and all other forms are expressly prohibited; LBP-12-23, 72 NRC 702 (2010)

Citizens Awareness Network, Inc. v. NRC, 391 F.3d 338, 351 (1st Cir. 2004)
a party is entitled to conduct such cross-examination as may be required for a full and true disclosure of the facts; LBP-10-15, 72 NRC 343-44 (2010)

Citizens Committee to Save Our Canyons v. U.S. Forest Service, 297 F.3d 1012, 1030 (10th Cir. 2002)
agencies are not allowed to define objectives of a project so narrowly as to preclude a reasonable consideration of alternatives; CLI-10-18, 72 NRC 79 (2010)

City of Cleveland v. Cleveland Electric Illuminating Co., 538 F. Supp. 1257, 1267 (N.D. Ohio 1980)
where expert reports are predicated upon complex data, calculations, and computer simulations that are neither discernible nor deducible from the written reports themselves, disclosure thereof is essential to the effective and efficient examination of the experts at trial; LBP-12-23, 72 NRC 704 n.15 (2010)

Clarkco Landfill Co. v. Clark City Solid Waste Management District, 20 F. Supp. 2d 1185, 1191 (S.D. Ohio 1998)
mere experience or background in a relevant technical field does not imply knowledge of the specific disputed facts in a case; CLI-10-22, 72 NRC 206 (2010)

Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)
standing requires that petitioner allege a particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-10-16, 72 NRC 380 (2010)
where a facility will not be located within an Indian tribes boundaries, the tribe must meet the standing requirements imposed by 10 C.F.R. 2.309(d)(1); LBP-10-16, 72 NRC 390-91 (2010)

Colorado Environmental Coalition v. Dombeck, 185 F.3d 1162, 1172 (10th Cir. 1999)
the test of compliance with NEPA and 40 C.F.R. 1502.22 is whether the analysis constitutes a reasonable, good-faith presentation of the best information available under the circumstances; LBP-10-15, 72 NRC 286 (2010)

Comeau v. Rupp, 810 F. Supp. 1127, 1166 (D. Kan. 1992)
control comprehends the right, authority, or ability to obtain the documents; LBP-12-23, 72 NRC 708 n.23 (2010)

Commonwealth Edison Co. (Braidwood Nuclear Power Station, Units 1 and 2), CLI-86-8, 23 NRC 241, 250-51 (1986)
the board is obliged to evaluate the timeliness of a proposed contention even if no party raises the issue; LBP-10-17, 72 NRC 508 (2010)

Commonwealth Edison Co. (Byron Nuclear Power Station, Units 1 and 2), ALAB-793, 20 NRC 1591, 1614-16 (1984)
deferral of review of board denial of rule waiver petition did not cause irreparable injury; CLI-10-29, 72 NRC 562 (2010)

Commonwealth Edison Co. (LaSalle County Nuclear Power Station, Units 1 and 2), CLI-73-8, 6 AEC 169, 170 (1973)
diligent, even aggressive, probing for weaknesses in a witness's or counsel's position may be necessary if presiding officers are to fulfill their duty to develop an adequate record that will contribute to informed decisionmaking; CLI-10-17, 72 NRC 47 (2010)

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Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-196, 7 AEC 457, 469 (1974)
in licensing proceedings, protective orders provide an effective means for safeguarding proprietary information, where the party seeking discovery is not a competitor; CLI-10-24, 72 NRC 463 n.74 (2010)
withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned to inspect a proprietary document; CLI-10-24, 72 NRC 463 n.74 (2010)

Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-222, 8 AEC 229, 235, *aff'd in part on other grounds,* CLI-74-35, 8 AEC 374 (1974)
Congress considers the Atomic Safety and Licensing Board to be a panel of experts; CLI-10-17, 72 NRC 49 (2010)

Commonwealth Edison Co. (Zion Station, Units 1 and 2), ALAB-222, 8 AEC 229, 236-37, *aff'd in part on other grounds,* CLI-74-35, 8 AEC 374 (1974)
diligent, even aggressive, probing for weaknesses in a witness's or counsel's position may be necessary if presiding officers are to fulfill their duty to develop an adequate record that will contribute to informed decisionmaking; CLI-10-17, 72 NRC 47 (2010)

Commonwealth Edison Co. (Zion Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 98 (2000)
burden is on petitioner to allege a specific and plausible means by which contaminants from mining activities may adversely affect him or her; LBP-10-16, 72 NRC 384 (2010)

Communities, Inc. v. Busey, 956 F.2d 619, 626 (6th Cir. 1992)
NEPA requirements are tempered by a practical rule of reason; CLI-10-22, 72 NRC 208 (2010)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information, and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

Consolidated Edison Co. of New York (Indian Point, Unit 2), CLI-85-6, 21 NRC 1043, 1084 (1985)
although the Federal Rules of Evidence are not mandated for NRC adjudicatory proceedings, the Commission has endorsed the use of the FRE as guidance for the boards with the express proviso that boards must apply the Part 2 rules with greater flexibility than the FRE; LBP-12-23, 72 NRC 705-06 (2010)

Consolidated Edison Co. of New York (Indian Point, Units 1 and 2), CLI-01-8, 53 NRC 225, 227 (2001)
petitioners sought access to an unredacted version of the license transfer application in order to obtain confidential financial information relevant to the expected costs of the plant's operation and maintenance that had been redacted; CLI-10-24, 72 NRC 466 (2010)

Consolidated Edison Co. of New York (Indian Point, Units 1 and 2), CLI-01-8, 53 NRC 225, 228-29 (2001)
licensing adjudication will not be held in abeyance pending completion of a related NRC enforcement action; CLI-10-17, 72 NRC 10 (2010)

Consolidated Edison Co. of New York (Indian Point, Units 1 and 2), CLI-01-8, 53 NRC 225, 230 (2001)
petitioners asserted that they needed access to confidential commercial and financial information because without it they would be unable to submit sufficiently specific and supported contentions regarding the applicant's financial qualifications; CLI-10-24, 72 NRC 466 (2010)

Consolidated Edison Co. of New York (Indian Point, Units 1 and 2), CLI-01-8, 53 NRC 225, 230-31 (2001)
upon a showing of need, petitioners' request to obtain access to an unredacted application was granted; CLI-10-24, 72 NRC 466 (2010)

Consolidated Edison Co. of New York (Indian Point, Units 1 and 2), CLI-01-19, 54 NRC 109, 132-33 & nn.17-18 (2001)
the Commission disapproves of incorporation by reference in petitions for review, where it has the effect of bypassing the page limits set forth in NRC regulations; CLI-10-17, 72 NRC 45-46 n.247 (2010)

Consumers Energy Co. (Big Rock Point Independent Spent Fuel Storage Installation), CLI-07-19, 65 NRC 423, 426 (2007)
an individual petitioner may not request to intervene in his or her own right while simultaneously authorizing other petitioners to represent his or her interests in the proceeding; LBP-10-16, 72 NRC 390 (2010)
in cases involving ISL uranium mining and other source materials licensing, petitioner must demonstrate injury, causation, and redressability because proximity to the proposed facility alone is not adequate to demonstrate standing; LBP-10-16, 72 NRC 384 (2010)

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Consumers Energy Co. (Big Rock Point Independent Spent Fuel Storage Installation), CLI-07-21, 65 NRC 519, 522 (2007)
petitioners must seek leave to request reconsideration of a decision and set forth compelling circumstances that petitioners could not reasonably have anticipated and that would render the decision invalid; CLI-10-21, 72 NRC 201 n.15 (2010)

Consumers Energy Co. (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 408-09 (2007)
an organization seeking to establish representational standing must show that at least one of its members may be affected by the proceeding; LBP-10-16, 72 NRC 389-90 (2010)

Consumers Energy Co. (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007)
an organization must identify its authorizing member and show that the member has authorized the organization to represent him or her and request a hearing on his or her behalf; LBP-10-16, 72 NRC 390 (2010)

Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-458, 7 NRC 155, 162 (1978)
if a board on remand were to rule in petitioners' favor regarding the admissibility of one contention, then the board should also reconsider its prior ruling that related contentions were admissible; CLI-10-21, 72 NRC 199 (2010)

Consumers Power Co. (Midland Plant, Units 1 and 2), ALAB-684, 16 NRC 162, 165 n.3 (1982)
only in truly extraordinary and unanticipated circumstances are late filings to be accepted; LBP-10-21, 72 NRC 637 (2010)

Consumers Power Co. (Midland Plant, Units 1 and 2), LBP-72-29, 5 AEC 142, 143 (1972)
although the phrase "possession, custody, or control," is used, no relevant interpretation or construction of the phrase, or of the term control, is provided; LBP-12-23, 72 NRC 706 (2010)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (2009)
the Commission defers to a licensing board's rulings on contention admissibility unless an appeal points to an error of law or abuse of discretion; CLI-10-21, 72 NRC 200 (2010)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 343 (2009)
petitioner must make a fresh standing demonstration in each individual proceeding in which intervention is sought; LBP-10-21, 72 NRC 640 (2010)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 345 (2009)
a board's determination of standing does not depend on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible; LBP-10-16, 72 NRC 382 (2010)
if none of the individuals in a materials licensing proceeding claims to live on or immediately adjacent to a proposed mining site, the board must determine whether petitioners have presented sufficient evidence to establish that a plausible pathway exists through which contaminants could migrate from the proposed mining site to the petitioners' water sources; LBP-10-16, 72 NRC 385 (2010)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 348-51 (2009)
Indian tribe's contention regarding compliance with the National Historic Preservation Act consultation requirements was not ripe for litigation; LBP-10-16, 72 NRC 419, 420, 421 (2010)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 351 (2009)
a tribe is free to file a contention later on in the proceeding if, after Staff releases its environmental documents, the tribe believes that the Staff has failed to satisfy its obligations under NEPA and the National Historic Preservation Act; LBP-10-16, 72 NRC 422, 440 (2010)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 356 (2009)
contention is rejected as lacking support for the premise that ongoing mining operations will drain or contaminate wetlands, such that their economic benefits will be decreased; LBP-10-16, 72 NRC 400 (2010)

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Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 363-64 (2009)
board admission of late-filed contention was reversed because petitioners failed to support their fundamental premise that applicant's licensed activities have exposed petitioners and others to a toxic substance; CLI-10-20, 72 NRC 194 n.49 (2010)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), LBP-08-24, 68 NRC 691, 730 (2008)
the board found the practice of incorporating by reference contrary to Commission case law and denied contentions on the basis on the dearth of information; LBP-10-16, 72 NRC 397 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 549 (2009)
petitioner demonstrated good cause for its late filing; LBP-10-24, 72 NRC 731 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 549 n.61 (2009)
good cause is the most significant of the late-filing factors set out in 10 C.F.R. 2.309(c); LBP-10-24, 72 NRC 731, 769 (2010)
licensing boards and the Commission have considered the late-filing criteria even in cases where the factors were not fully addressed by petitioners and/or the NRC Staff or were not addressed at all; LBP-10-24, 72 NRC 743 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552 (2009)
licensing boards may reformulate contentions to eliminate extraneous issues or to consolidate issues for a more efficient proceeding; LBP-10-14, 72 NRC 127 n.171 (2010)
to ensure a more efficient proceeding, the board merges two contentions; LBP-10-16, 72 NRC 406 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552-53 (2009)
boards have legal authority to reformulate contentions; LBP-10-16, 72 NRC 403 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552-54 (2009)
where the Commission found that the board did not provide clarity on the scope of admitted contentions, it exercised its authority to reformulate the contentions; CLI-10-18, 72 NRC 87 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 553 (2009)
boards are authorized to hold prehearing conferences to simplify or clarify the issues for hearing, after which they may admit a revised contention, as long as the revised contention does not add material not raised by the intervenor to make it admissible; LBP-10-14, 72 NRC 127 n.171 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 566 (2009)
petitioner is free to file a contention later on in the proceeding if, after Staff releases its environmental documents, petitioner believes that the Staff has failed to satisfy its obligations under NEPA and the National Historic Preservation Act; LBP-10-16, 72 NRC 440 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 572 (2009)
mandatory disclosures, which apply to Subpart L proceedings, are wide-reaching; LBP-12-23, 72 NRC 701 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 573 (2009)
a board abused its discretion in reformulating and admitting contentions; LBP-10-16, 72 NRC 397 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 278 (2008), *aff'd,* CLI-09-12, 69 NRC 535 (2009)
boards should afford greater latitude to a pleading submitted by a *pro se* petitioner; CLI-10-20, 72 NRC 189 (2010)

Crow Butte Resources, Inc. (North Trend Expansion Project), LBP-08-6, 67 NRC 241, 280 (2008)
petitioner is not required to go further at the threshold contention admission stage to establish injury in fact; LBP-10-16, 72 NRC 388 (2010)

Crow Creek Sioux Tribe v. Brownlee, 331 F.3d 912, 916 (D.C. Cir. 2003)
an Indian tribe does not have standing merely because it has statutory rights in burial remains and cultural artifacts, but rather, the tribe must show some actual or imminent injury; LBP-10-16, 72 NRC 392 n.112 (2010)

Cumis Insurance Society, Inc. v. South-Coast Bank, 610 F. Supp. 193, 196 (N.D. Ind. 1985)
the phrase "possession, custody, or control" is in the disjunctive, and only one of the enumerated requirements need be met; LBP-12-23, 72 NRC 707 (2010)

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Curators of the University of Missouri (TRUMP-S Project), CLI-95-8, 41 NRC 386, 395 (1995)
license applications may be modified or improved during the NRC review process; LBP-10-17, 72 NRC 514 (2010)

David Geisen, CLI-06-19, 64 NRC 9, 11 (2006)
the question whether to hold an NRC enforcement proceeding in abeyance pending a related criminal prosecution is generally suitable for interlocutory Commission review because, unlike most interlocutory questions, the abeyance issue cannot await the end of the proceeding (it becomes moot); CLI-10-29, 72 NRC 561 n.32 (2010)

Department of Transportation v. Public Citizen, 541 U.S. 752, 757 (2004)
Council on Environmental Quality regulations receive substantial deference from federal courts in interpreting the requirements of NEPA; LBP-10-16, 72 NRC 418 n.275 (2010)

Department of Transportation v. Public Citizen, 541 U.S. 752, 765 (2004)
primary obligation to satisfy the requirements of NEPA rests on the agency; CLI-10-18, 72 NRC 82 (2010)

Desert Palace v. Costa, 539 U.S. 90, 99-100 (2003)
plaintiff may prove his case by direct or circumstantial evidence; CLI-10-23, 72 NRC 242 n.157 (2010)

Detroit Edison Co. (Enrico Fermi Atomic Power Plant, Unit 2), ALAB-470, 7 NRC 473, 474-75 (1978)
economic impact of a proposed action on ratepayers is outside the scope of a NEPA analysis; LBP-10-14, 72 NRC 126 (2010)

Detroit Edison Co. (Greenwood Energy Center, Units 2 and 3), ALAB-247, 8 AEC 936 (1974)
even if offsite construction does not appear to be part of the plan, it does not follow that offsite consequences need not be considered; CLI-10-18, 72 NRC 91 (2010)

Doe v. United States Postal Service, 317 F.3d 339, 343 (D.C. Cir. 2003)
the court draws no distinction between the probative value of direct and circumstantial evidence; CLI-10-23, 72 NRC 242 n.157 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 2), CLI-03-14, 58 NRC 207, 213 (2003)
rules on contention admissibility are strict by design; LBP-10-15, 72 NRC 278 (2010); LBP-10-16, 72 NRC 394 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-02-27, 56 NRC 367, 370 n.10 (2002)
appellate briefs *amicus curiae* are welcome from parties in other Commission adjudications that have presented similar issues; CLI-10-17, 72 NRC 6 n.16 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 233 (2008)
rules on contention admissibility are strict by design; LBP-10-15, 72 NRC 278 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 120-21 (2009)
the Commission's referral of a motion to reopen to the ASLBP and subsequent establishment of the board gives the board jurisdiction over the motion; LBP-10-21, 72 NRC 642 n.11 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 120-21, 124-25 (2009)
petitioners seeking to introduce new contentions after the board has denied their initial petition to intervene need to address the reopening standards; LBP-10-21, 72 NRC 642-43 (2010)
when the contested portion of a proceeding has been terminated following an unchallenged merits determination in favor of applicant regarding the proceeding's sole admitted contention, the board's focus must be on the requirements applicable to reopening a closed record set out in 10 C.F.R. 2.326; LBP-10-21, 72 NRC 644 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 123 n.39 (2009)
contentions that inappropriately focus on Staff's review of the application rather than on the errors and omissions of the application itself are inadmissible; CLI-10-27, 72 NRC 493 (2010)

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Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 124 (2009)
- extended power uprate proceeding that has been terminated may not be reopened; CLI-10-17, 72 NRC 10-11 n.37 (2010)
- when petitioner seeks to introduce a new contention after the record has been closed, it should address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing; LBP-10-21, 72 NRC 643 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 126 (2009)
- to show good cause for the late filing of a contention, 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; CLI-10-27, 72 NRC 496 n.70 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001)
- rules on contention admissibility are strict by design; LBP-10-15, 72 NRC 278 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358-59 (2001)
- rules on contention admissibility are strict by design; LBP-10-16, 72 NRC 394 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 365-67 (2001)
- a relatively high threshold exits for the admission of contentions alleging that applicant or its management lack integrity or are guilty of improprieties such that the license being sought should not be granted; LBP-10-15, 72 NRC 337 (2010)
- historical actions by an applicant 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-10-20, 72 NRC 194 n.48 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 636 (2004)
- failure to comply with any of the contention pleading requirements is grounds for rejecting a contention; LBP-10-15, 72 NRC 278 (2010); LBP-10-16, 72 NRC 395 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637-38 (2004)
- license renewal proceedings focus on the potential impacts of an additional 20 years of nuclear power plant operation, not on everyday operational issues; CLI-10-27, 72 NRC 492 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 638 (2004)
- license renewal review does not focus on aging-related issues that are effectively addressed and maintained by ongoing agency oversight, review, and enforcement; CLI-10-27, 72 NRC 492 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 641 n.40 (2004)
- the Commission disapproves of incorporation by reference in petitions for review, where it has the effect of bypassing the page limits set forth in NRC regulations; CLI-10-17, 72 NRC 45-46 n.247 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005)
- the Commission has set forth a four-part test for grant of a rule waiver, and all four factors must be met; LBP-10-22, 72 NRC 688 (2010)
- the conditions for grant of an exemption from or waiver of a rule are described; LBP-10-15, 72 NRC 279, 297, 303 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560 (2005)
- in the context of a NEPA analysis, the question of whether application of a regulation would serve the purposes for which the rule or regulation was adopted can be addressed by examining the continued viability of the environmental analysis on which the regulation is based; LBP-10-15, 72 NRC 301 (2010)

petitioner has made a prima facie showing that the special circumstances that are the basis of the waiver request are unique to the facility rather than common to a large class of facilities; LBP-10-15, 72 NRC 304 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-06-4, 63 NRC 32, 35-36 (2006)

once a licensing board has concluded board action on a licensing case, jurisdiction to decide a motion to reopen regarding that proceeding passes to the Commission, which retains jurisdiction until the license in question has been issued; LBP-10-21, 72 NRC 642 n.11 (2010)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), LBP-04-15, 60 NRC 81, 89 & n.26 (2004)

it is a settled rule of practice that contentions ought to be interpreted in light of the required specificity, so that adjudicators and parties need not search out broader meanings than were clearly intended; LBP-10-16, 72 NRC 398 n.153 (2010)

Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 228-29 (2007)

a rule of reason applies to the assessment of the adequacy of a NEPA analysis; CLI-10-18, 72 NRC 74 (2010)

Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 265 (2004)

although a licensing board does not decide the merits or resolve conflicting evidence at the contention admissibility stage, materials cited as the basis for a contention are subject to scrutiny by the board to determine whether they actually support the facts alleged; LBP-10-24, 72 NRC 750 (2010)

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), challenges to regulations must be addressed through Commission rulemaking; LBP-10-16, 72 NRC 438 (2010)

Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 271, 276 (2004)

boards have legal authority to reformulate contentions; LBP-10-16, 72 NRC 403 (2010)

Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-28, 54 NRC 393, 399-401 (2001), *reconsideration denied,* CLI-02-2, 55 NRC 5 (2002)

the Commission generally declines to hold proceedings in abeyance pending the outcome of other Commission actions or adjudications; CLI-10-17, 72 NRC 10 n.36 (2010)

Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-28, 54 NRC 393, 400 (2001), *reconsideration denied,* CLI-02-2, 55 NRC 5 (2002)

there is no reason to postpone the MOX fuel proceeding which will require resolution of many issues having nothing to do with terrorism; CLI-10-17, 72 NRC 10 n.34 (2010)

Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 67, 73 (2004)

a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed de novo; CLI-10-24, 72 NRC 461 (2010)

Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 71 (2004)

review at the end of the case would be meaningless because the Commission cannot later, on appeal from a final board decision, rectify an erroneous disclosure order; CLI-10-29, 72 NRC 561 n.32 (2010)

Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-21, 60 NRC 21, 27 (2004)

although the Federal Rules of Evidence are not mandated for NRC adjudicatory proceedings, the Commission has endorsed the use of the FRE as guidance for licensing boards; LBP-12-23, 72 NRC 705 (2010)

licensing boards normally have considerable discretion in making evidentiary rulings; CLI-10-18, 72 NRC 73 (2010)

the abuse of discretion standard properly applies to a board evidentiary ruling regarding expert qualification; CLI-10-24, 72 NRC 461 n.65 (2010)

the standard of review on appeal is abuse of discretion; CLI-10-24, 72 NRC 461 (2010)

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Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-21, 60 NRC 21, 27, 31 (2004)
a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed *de novo*; CLI-10-24, 72 NRC 461 (2010)
Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-21, 60 NRC 21, 31 (2004)
for an issue involving access to safeguards information, the stated Commission practice is to review such issues closely; CLI-10-24, 72 NRC 461 n.65 (2010)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 212 (2001)
the scope of a license renewal proceeding under 10 C.F.R. Part 54 encompasses a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to time-limited aging analyses; CLI-10-17, 72 NRC 16 (2010)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-27, 54 NRC 385, 389-91 (2001)
the Commission generally declines to hold proceedings in abeyance pending the outcome of other Commission actions or adjudications; CLI-10-17, 72 NRC 10 n.36 (2010)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 5 (2002)
severe accident mitigation alternatives are rooted in a cost-benefit assessment, the purpose of which is to identify plant changes whose costs would be less than their benefit, i.e., the potential for significantly improving severe accident safety performance; LBP-10-14, 72 NRC 127 n.171 (2010)
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)
at the contention admissibility stage, intervenors are not required, under the rubric of materiality, to run a sensitivity analysis and/or to prove that alleged defects would change the result; LBP-10-14, 72 NRC 128 n.182 (2010)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 12 (2002)
the Commission is unwilling to throw open its hearing doors to petitioners who have done little in the way of research or analysis, provide no expert opinion, and rest merely on unsupported conclusions; LBP-10-15, 72 NRC 320 (2010)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382 (2002)
a contention challenging an applicant's environmental report can be superseded by the subsequent issuance of licensing-related documents, whether a draft environmental impact statement or an applicant's response to a request for additional information; LBP-10-14, 72 NRC 108, 112 (2010)
where a contention is superseded by the subsequent issuance of licensing-related documents, the contention must be disposed of or modified; LBP-10-17, 72 NRC 507 (2010)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382-83 (2002)
the Commission distinguishes between contentions that merely allege an omission of information and those that challenge substantively and specifically how particular information has been discussed in a license application; LBP-10-14, 72 NRC 108-09 (2010)
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)
if a contention of omission becomed moot because the missing information has been supplied by applicant or considered by Staff in a draft EIS, intervenors must timely file a new or amended contention in order to raise specific challenges regarding the new information; LBP-10-14, 72 NRC 109, 136 (2010)
if applicant cures the omission on which a contention is based, the contention will become moot; LBP-10-14, 72 NRC 109, 136 (2010); LBP-10-16, 72 NRC 395 (2010)

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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)
petitioner has an iron-clad obligation to examine the publicly available documentary material with sufficient care to enable it to uncover any information that could serve as the foundation for a specific contention; CLI-10-27, 72 NRC 496 (2010)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428-29 (2003)
a listing of issues with which petitioners disagree with the application is the form of notice pleading that the Commission has long held is insufficient; LBP-10-16, 72 NRC 414 (2010)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334-35 (1999)
rules on contention admissibility are strict by design; LBP-10-15, 72 NRC 278 (2010); LBP-10-16, 72 NRC 394 (2010)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 343 (1999)
in the area of waste storage, the Commission largely has chosen to proceed generically through the rulemaking process instead of litigating issues case-by-case in adjudicatory proceedings; CLI-10-19, 72 NRC 99 (2010)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)
if petitioners or intervenors are dissatisfied with NRC's generic approach to a problem, their remedy lies in the rulemaking process, not in adjudication; CLI-10-19, 72 NRC 100 (2010)
under longstanding NRC policy, licensing boards should not accept in individual license proceedings contentions that are or are about to become the subject of general rulemaking by the Commission; CLI-10-19, 72 NRC 100 (2010)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 346 (1999)
it would be counterproductive and contrary to longstanding agency policy to initiate litigation on an issue that by all accounts very soon will be resolved generically; CLI-10-19, 72 NRC 100 (2010)

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985)
scope of the proceeding is defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-10-17, 72 NRC 511 (2010)

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1043 (1983)
the unavailability of documents does not constitute a showing of good cause for admitting a late-filed contention when the factual predicate for that contention is available from other sources in a timely manner; CLI-10-27, 72 NRC 496 n.69 (2010)

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983)
adequacy of NRC's environmental review as reflected in the adequacy of an environmental impact statement is an appropriate issue for litigation in a licensing proceeding; LBP-10-24, 72 NRC 746 (2010)

Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1050 (1983)
a contention challenging an applicant's environmental report can be superseded by the subsequent issuance of licensing-related documents, whether a draft environmental impact statement or an applicant's response to a request for additional information; LBP-10-14, 72 NRC 108 (2010)
where a contention is superseded by the subsequent issuance of licensing-related documents the contention must be disposed of or modified; LBP-10-17, 72 NRC 507 (2010)

Duke Power Co. (William B. McGuire Nuclear Station, Units 1 and 2), ALAB-669, 15 NRC 453, 475 (1982)
although the Federal Rules of Evidence are not mandated for NRC adjudicatory proceedings, the Commission has endorsed the use of the FRE as guidance for the boards with the express proviso that boards must apply the Part 2 rules with greater flexibility than the FRE; LBP-12-23, 72 NRC 705-06 (2010)
an abuse of discretion standard is applied to Commission review of decisions on evidentiary questions; CLI-10-18, 72 NRC 73 (2010)
licensing boards normally have considerable discretion in making evidentiary rulings; CLI-10-18, 72 NRC 73 (2010)

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Duncan's Point Lot Owners Association, Inc. v. Federal Energy Regulatory Commission, 522 F.3d 371 (D.D.C. 2008)
tribes that have addressed procedural violations of the National Historic Preservation Act have uniformly been granted standing under the relaxed standard and have proceeded directly to the merits of the NHPA claim; LBP-10-16, 72 NRC 393 n.123 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-08-2, 67 NRC 31, 35 (2008)
the mere potential for legal error in a contention admissibility decision is not a ground for interlocutory review; CLI-10-30, 72 NRC 568 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 297 (2010)
summary disposition rules 2.1205 and 2.710 are substantially similar; LBP-10-20, 72 NRC 579 n.10 (2010)

Energy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 315 (2010)
although there will always be more data that could be gathered, agencies must have some discretion to draw the line and move forward with decisionmaking; LBP-10-15, 72 NRC 285 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 453-56 (2010)
broad-based issues akin to safety culture, such as operational history, quality assurance, quality control, management competence, and human factors, are beyond the bounds of a license renewal proceeding; CLI-10-27, 72 NRC 491 n.47 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 454 (2010)
the aging management review for license renewal does not focus on all aging-related issues; CLI-10-27, 72 NRC 492 n.53 (2010)
the only safety issue where the regulatory process may not adequately maintain a plant's current licensing basis involves the potential detrimental effects of aging on the functionality of certain systems, structures, and components in the period of extended operations; CLI-10-27, 72 NRC 491 n.47 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 463 (2010)
the regulatory process continuously reassesses whether there is a need for additional oversight or regulations to protect public health and safety; CLI-10-27, 72 NRC 492 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 466 (2010)
the Atomic Safety and Licensing Board is considered to be a panel of experts; CLI-10-17, 72 NRC 49-50 n.276 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 471-75 (2010)
SAMA analyses are not required for the spent fuel storage impacts associated with license renewals; LBP-10-15, 72 NRC 308 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 482 (2010)
a listing of issues with which petitioners disagree with the application is the form of notice pleading that the Commission has long held is insufficient; LBP-10-16, 72 NRC 414 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 288-93 (2006)
although the terms "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated these terms clearly limit them to nuclear reactors, and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 307 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 340 (2006)
probabilistic risk assessment is the Commission's accepted and standard practice in severe accident mitigation alternatives analyses; LBP-10-15, 72 NRC 282, 286 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 341 (2006)
boards have legal authority to reformulate contentions; LBP-10-16, 72 NRC 403 (2010)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 356 (2006)
the requirement under 10 C.F.R. 2.309(f)(1)(v) that contentions be supported by alleged facts or expert opinion 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-10-14, 72 NRC 129 (2010)

Entergy Nuclear Operations, Inc. (Big Rock Point Plant), CLI-08-19, 68 NRC 251, 258-59, 266 (2008)
when an organization requests a hearing, it may seek to establish standing either on its own behalf or on behalf of one or more of its members; LBP-10-16, 72 NRC 389 (2010)

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Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-08-7, 67 NRC 187, 192 (2008)
licensing boards have the authority to regulate the course of the proceeding, and the Commission generally defers to boards on case management decisions; CLI-10-28, 72 NRC 554 (2010)

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-08-27, 68 NRC 655, 656 (2008)
licensing board decisions denying a petition for rule waiver generally are not appealable until the board has issued a final decision resolving the case, unless a party seeking review shows that one of the grounds for interlocutory review has been met; CLI-10-29, 72 NRC 560 (2010)

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-09-6, 69 NRC 128, 132, 137 (2009)
because it disfavors piecemeal appeals, the Commission will grant interlocutory review only in extraordinary circumstances; CLI-10-29, 72 NRC 560(2010)

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-09-6, 69 NRC 128, 133 (2009)
interlocutory review is granted only in extraordinary circumstances; CLI-10-30, 72 NRC 568 (2010)

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 109-10 (2008)
petitioners fail to explain why more recent information regarding earthquakes would make a material change in the conclusions of the seismic severe accident mitigation alternatives analysis and fail to suggest feasible alternatives to address new risks or estimate costs of additional measures; LBP-10-15, 72 NRC 283 (2010)

Entergy Nuclear Operations, Inc. (Palisades Nuclear Plant), CLI-08-19, 68 NRC 251, 263 n.40 (2008)
licensing board decisions carry no precedential weight; CLI-10-23, 72 NRC 222 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-07-1, 65 NRC 1, 5 (2007)
interlocutory review is granted where the issues are significant, have potentially broad impact, and may well recur in the likely license renewal proceedings for other plants; CLI-10-27, 72 NRC 489 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1 (2010)
licensing boards have the authority to regulate the course of the proceeding, and the Commission generally defers to boards on case management decisions; CLI-10-28, 72 NRC 554 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-04-31, 60 NRC 686, 692 (2004)
the informal procedural rules of Part 2, Subpart L place greater emphasis and responsibility on the presiding officer to oversee the development of a full and complete record; CLI-10-17, 72 NRC 48 n.264 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-04-31, 60 NRC 686, 692-93 (2004)
as NRC hearings have moved away from the traditional trial-type adversarial format and toward a more informal model, the inquisitorial role of the presiding officer necessarily has increased; CLI-10-17, 72 NRC 47-48 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-04-31, 60 NRC 686, 704-06 (2004)
Subpart L and Subpart N cannot simultaneously govern license renewal proceedings for materials licensees; LBP-10-15, 72 NRC 344 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-04-33, 60 NRC 749, 754 (2004)
NRC regulations preserve the right to a hearing when an application is amended by allowing new or amended contentions to be filed in response to material new information; LBP-10-17, 72 NRC 515 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-05-32, 62 NRC 813, 821 (2005)
if a contention meets the 10 C.F.R. 2.309(f)(2) criteria, it is timely and the intervenor proffering the contention need not also make a showing under 10 C.F.R. 2.309(c); LBP-10-14, 72 NRC 108 n.27 (2010)

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Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 572-74 (2006)
if a contention meets the 10 C.F.R. 2.309(f)(2) criteria, it is timely and the intervenor proffering the contention need not also make a showing under 10 C.F.R. 2.309(c); LBP-10-14, 72 NRC 108 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 574 (2006)
submission of a new contention within 30 days of the event giving rise to that contention is timely; LBP-10-17, 72 NRC 509 n.25 (2010)

Entergy Nuclear Vermont Yankee (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 581 (2006)
pro se petitioners are held to less rigid pleading standards, so that parties with a clear but imperfectly stated interest in the proceeding are not excluded; CLI-10-20, 72 NRC 192 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 149 (2006)
a dispute is not material unless it involves a significant inaccuracy or omission and resolution of the dispute could affect the outcome of the licensing proceeding; LBP-10-14, 72 NRC 117 n.93 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 201-02 (2006)
in Subpart G proceedings, parties are permitted to propound interrogatories, take depositions, and cross-examine witnesses without leave of the board; LBP-10-15, 72 NRC 343 (2010); LBP-10-16, 72 NRC 442 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-06-20, 64 NRC 131, 202 (2006)
the board determines which hearing procedure to use on a contention-by-contention basis; LBP-10-15, 72 NRC 344 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 265 n.5 (2007)
if a contention meets the 10 C.F.R. 2.309(f)(2) criteria, it is timely and the intervenor proffering the contention need not also make a showing under 10 C.F.R. 2.309(c); LBP-10-14, 72 NRC 108 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 266 n.11 (2007)
unless a deadline has been specified in the scheduling order for the proceeding, the determination of timeliness is subject to a reasonableness standard that depends on the facts and circumstances of each situation; LBP-10-24, 72 NRC 731, 741 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 272 (2007)
selection of hearing procedures for contentions at the outset of a proceeding is not immutable because the availability of Subpart G procedures depends critically on whether the credibility of eyewitnesses is important in resolving a contention, and witnesses relevant to each contention are not identified until after contentions are admitted; LBP-10-15, 72 NRC 345 n.99 (2010); LBP-10-16, 72 NRC 443 n.471 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Plant), LBP-10-19, 72 NRC 529, 545 (2010)
in light of the requirements that any new contention be based on material information that was not previously available, the timeliness determination required under section 2.309(f)(2) and the section 2.326(a) reopening standard can be closely equated; LBP-10-21, 72 NRC 650 (2010)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Plant), LBP-10-19, 72 NRC 529, 545-50 (2010)
reopening standards are discussed and analyzed; LBP-10-21, 72 NRC 643 (2010)

Environmental Law and Policy Center v. NRC, 470 F.3d 676, 684 (7th Cir. 2006)
NRC may, consistent with NEPA, define baseload power generation as the purpose of and need for a project; LBP-10-24, 72 NRC 757 n.79 (2010)

Environmental Protection Information Center v. U.S. Forest Service, 451 F.3d 1005, 1016 (9th Cir. 2006)
the obligation of agencies to consider alternatives is a lesser one under an environmental assessment than under an environmental impact statement; CLI-10-18, 72 NRC 75 n.106 (2010)

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Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 805-08 (2005)
consideration of energy efficiency is not a reasonable alternative, where that alternative would not achieve applicant's goal of providing additional power to sell on the open market, and is not possible for an applicant who has no transmission or distribution system of its own, and no link to the ultimate power consumer; CLI-10-21, 72 NRC 199 n.7 (2010)

Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 806-08 (2005)
the National Environmental Policy Act's rule of reason excludes consideration of demand-side management if the proposed new plant is intended to be a merchant plant, selling power on the open market, because it is not feasible for licensee to engage in demand-side management; CLI-10-21, 72 NRC 199 (2010)

Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), LBP-04-17, 60 NRC 229, 245, 252 (2004)
boards have legal authority to reformulate contentions; LBP-10-16, 72 NRC 403 (2010)

Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), LBP-05-19, 62 NRC 134, 154 (2005)
as an independent agency, NRC has the authority to promulgate its own regulations implementing NEPA and is only bound by Council on Environmental Quality regulations when the NRC expressly adopts them; LBP-10-16, 72 NRC 437 (2010)

Exelon Generation Co., LLC (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 581 (2005)
if petitioner cannot establish the elements of proximity-based standing, then he must establish standing according to traditional standing principles; CLI-10-20, 72 NRC 189 (2010)

Exxon Corp. v. Train, 554 F.2d 1310, 1312 (5th Cir. 1977)
the Clean Water Act does not authorize regulation of discharges to groundwater and so applicant's environmental report must address those discharges; LBP-10-14, 72 NRC 137 n.238 (2010)

Fansteel, Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 203 (2003)
petitioner's issue will be ruled inadmissible if petitioner has offered no tangible information, no experts, or no substantive affidavits; LBP-10-15, 72 NRC 290 n.34 (2010)
the affidavit must state with particularity the special circumstances alleged to justify the waiver and may involve the assertion of facts, but does not require the assertion of an expert opinion; LBP-10-15, 72 NRC 310 (2010)

Fansteel, Inc. (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204-05 (2003)
in the case of unexplained material submitted in support of a contention, the board declines to hunt for information that the agency's procedural rules require be explicitly identified and fully explained; LBP-10-21, 72 NRC 647 (2010)
petitioner has an obligation to explain why cited testimony provides a basis for its contention; LBP-10-17, 72 NRC 510 n.26 (2010)

Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989)
in proceedings involving nuclear power reactors, petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and redressability if petitioner lives within 50 miles of the nuclear power reactor; LBP-10-16, 72 NRC 381 (2010)
proximity-based presumption of standing applies in proceedings for nuclear power plant construction permits, operating licenses, or significant amendments thereto; LBP-10-15, 72 NRC 276 (2010); LBP-10-16, 72 NRC 381 n.37 (2010); LBP-10-21, 72 NRC 639 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), ALAB-952, 33 NRC 521, 530 (1991)
to establish organizational standing, an organization must demonstrate that the action at issue will cause an injury-in-fact to the organization's interests and the injury is within the zone of interests protected by NEPA or the AEA; LBP-10-16, 72 NRC 383 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-91-5, 33 NRC 238, 240 (1991)
counsel's alleged unfamiliarity with the agency's rules of practice or counsel's asserted busy schedule are not satisfactory explanations for late filings; LBP-10-21, 72 NRC 637 (2010)

unfamiliarity with NRC's Rules of Practice is not sufficient excuse for late filings, particularly where the order that is being challenged expressly advised petitioner of his appellate rights and of the time within which those rights had to be exercised; CLI-10-26, 72 NRC 476 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-00-23, 52 NRC 327, 329 (2000)

to the degree that the general precept that a rule, including a design certification, cannot be challenged in an adjudication might be seen as placing such matters outside the scope of the proceeding; LBP-10-21, 72 NRC 654 n.24 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8 (2001)

challenges to the current licensing basis are outside the scope of a license renewal proceeding; LBP-10-15, 72 NRC 283 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 10 (2001)

adjudicatory hearings in individual license renewal proceedings will share the same scope of issues as the NRC Staff review; LBP-10-15, 72 NRC 333, 341 (2010)

perfect compliance by applicant is not required for license renewal; LBP-10-15, 72 NRC 335-36 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 13 (2001)

in the context of license renewal, the Commission's Atomic Energy Act aging-based safety review under Part 54 does not compromise or limit NEPA; LBP-10-15, 72 NRC 288, 296, 307 n.59 (2010)

the Atomic Energy Act and the National Environmental Policy Act contemplate separate NRC reviews of proposed licensing actions; CLI-10-18, 72 NRC 91 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 21 (2001)

Part 51 reference to SAMA analyses applies only to nuclear reactor accidents, not to spent fuel storage accidents; LBP-10-15, 72 NRC 295, 307 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 23, 24 n.18 (2001)

to the extent petitioner believes that NRC Staff has overlooked facts indicating an inadequate safety culture as a matter separate and apart from license renewal, then its remedy is to direct Staff's attention to the supporting facts via a petition for enforcement action; CLI-10-27, 72 NRC 492 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 24-25 (2001)

petitioner has an iron-clad obligation to examine the publicly available documentary material with sufficient care to enable it to uncover any information that could serve as the foundation for a specific contention; CLI-10-27, 72 NRC 496 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 152 (2001)

Part 54 is confined to issues uniquely relevant to the public health and safety during the period of extended operations; LBP-10-15, 72 NRC 327 (2010)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 154 (2001)

contentions raising legal issues, like fact-based contentions, must fall within the allowable scope of the proceeding to be admissible; LBP-10-17, 72 NRC 511 (2010)

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-10-21, 72 NRC 651 (2010)

Food and Drug Administration v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 133 (2000)

words of a statute must be read in their context and with a view to their place in the overall statutory scheme; LBP-10-20, 72 NRC 610 (2010)

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Forest Guardians v. U.S. Forest Service, 495 F.3d 1162, 1172 (10th Cir. 2007)
NEPA requires federal agencies to consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives; LBP-10-24, 72 NRC 729 n.16 (2010)

Friends of Southeast's Future v. Morrison, 153 F.3d 1059, 1065 (9th Cir.1998)
existence of reasonable but unexamined alternatives renders an environmental impact statement inadequate; LBP-10-24, 72 NRC 756 (2010)

General Public Utilities Nuclear Corp. (Three Mile Island Nuclear Station, Unit 1), ALAB-881, 26 NRC 465, 473 (1987)
on appeal, the Commission refrains from exercising its authority to make de novo findings of fact in situations where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-10-18, 72 NRC 72-73 (2010)
the Commission will not overturn a hearing judge's findings simply because the Commission might have reached a different result; CLI-10-23, 72 NRC 241 n.153 (2010)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995)
although boards may view petitioner's supporting information in a light favorable to the petitioner, it cannot do so by ignoring our contention admissibility rules, which require petitioner (not the board) to supply all of the required elements for a valid intervention petition; CLI-10-20, 72 NRC 192 n.39 (2010)
an organization may base its standing on either immediate or threatened injury to its organizational interests, or to the interests of identified members; LBP-10-16, 72 NRC 382 n.49 (2010)
in determining whether petitioner has established standing, boards may construe the petition in favor of the petitioner; LBP-10-15, 72 NRC 276 (2010); LBP-10-21, 72 NRC 639-40 (2010)
licensing boards must assess intervention petitions to determine whether elements for standing are met even though if there are no objections to petitioner's standing; LBP-10-21, 72 NRC 639-40 (2010)
to derive standing from a member, an organization must demonstrate that the individual member has standing to participate and has authorized the organization to represent his or her interests; LBP-10-16, 72 NRC 382 n.49 (2010)
to establish organizational standing, an organization must demonstrate that the action at issue will cause an injury-in-fact to the organization's interests and the injury is within the zone of interests protected by NEPA or the AEA; LBP-10-16, 72 NRC 383 (2010)
where a facility will not be located within an Indian tribes boundaries, the tribe must meet the standing requirements imposed by 10 C.F.R. 2.309(d)(1); LBP-10-16, 72 NRC 390-91 (2010)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116 (1995)
in cases not involving nuclear power reactors, whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; CLI-10-20, 72 NRC 188 (2010)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118 (1995)
although the contention admissibility rule imposes on a petitioner the burden of going forward with a sufficient factual basis, it does not shift the ultimate burden of proof from applicant to petitioner; LBP-10-24, 72 NRC 756-57 (2010)
for factual disputes, petitioner need not proffer facts in formal affidavit or evidentiary form sufficient to withstand a summary disposition motion; LBP-10-24, 72 NRC 756-57 (2010)
petitioner is not required to prove its case at the contention admission stage; LBP-10-24, 72 NRC 756-57 (2010)
petitioner must present sufficient information to show a genuine dispute reasonably indicating that a further inquiry is appropriate; LBP-10-24, 72 NRC 756-57 (2010)
the level of support necessary for an admissible contention is explained; LBP-10-24, 72 NRC 756-57 (2010)

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Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995)
- although applicant's past management practices may help indicate whether a licensee will comply with agency standards, that performance must bear on the licensing action currently under review; LBP-10-15, 72 NRC 330 n.86, 334-45 (2010)
- as part of its licensing and oversight responsibilities, the Commission may consider the adequacy of a licensee's corporate organization and the integrity of its management; LBP-10-15, 72 NRC 337 (2010)

Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25 (1993)
- although applicant's past management practices may help indicate whether a licensee will comply with agency standards, that performance must bear on the licensing action currently under review; LBP-10-15, 72 NRC 329-30 n.86 (2010)

Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 30 (1993)
- as part of its licensing and oversight responsibilities, the Commission may consider the adequacy of a licensee's corporate organization and the integrity of its management; LBP-10-15, 72 NRC 337 (2010)

Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 32 (1993)
- a relatively high threshold exits for the admission of contentions alleging that applicant or its management lack integrity or are guilty of improprieties such that the license being sought should not be granted; LBP-10-15, 72 NRC 337 (2010)

Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), CLI-94-5, 39 NRC 190, 193 (1994)
- where the adverse impact of a release would occur now, the alleged harm is immediate for purpose of interlocutory appeal; CLI-10-29, 72 NRC 561 n.32 (2010)

Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), LBP-93-21, 38 NRC 143, 146 (1993)
- it is a settled rule of practice that contentions ought to be interpreted in light of the required specificity, so that adjudicators and parties need not search out broader meanings than were clearly intended; LBP-10-16, 72 NRC 398 n.153 (2010)

Gladstone Realtors v. Village of Bellwood, 441 U.S. 91, 109 (1979)
- to determine whether petitioners have standing, boards accept as true all material allegations of the complaint and construe the complaint in favor of the complaining party; CLI-10-20, 72 NRC 192 n.39 (2010)

Gooden v. Neal, 17 F.3d 925, 935 (7th Cir. 1994)
- a winner cannot appeal a judgment; CLI-10-17, 72 NRC 44 (2010)

GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 194 (2000)
- an organization asserting representational standing must demonstrate that the interest of at least one of its members will be harmed and the member would have standing in his or her own right, identify that member by name and address, and demonstrate that the organization is authorized to request a hearing on behalf of that member; LBP-10-16, 72 NRC 383 (2010)

GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 204 n.6 (2000)
- cursory, unsupported arguments will not be considered; CLI-10-23, 72 NRC 246 n.177 (2010); CLI-10-17, 72 NRC 30-31 n.172 (2010)

GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000)
- in the absence of evidence to the contrary, NRC does not presume that a licensee will violate agency regulations wherever the opportunity arises; LBP-10-20, 72 NRC 608 n.1 (2010)
- petitioner's issue will be ruled inadmissible if petitioner has offered no tangible information, no experts, or no substantive affidavits; LBP-10-15, 72 NRC 290 n.34 (2010)
- unsupported speculation that applicant will contravene NRC rules at some point in the future is not an adequate basis for a contention; LBP-10-15, 72 NRC 327, 328, 335 (2010)

Gray v. Faulkner, 148 F.R.D. 220, 223 (N.D. Ind. 1992)
- a party must seek information reasonably available from employees, agents, or others subject to the party's control; LBP-12-23, 72 NRC 708 n.24 (2010)

Green v. Fulton, 157 F.R.D. 136, 142 (D. Me. 1994)
- when a party has right, authority, or ability to obtain documents on demand, they will be deemed to be under party's control; LBP-12-23, 72 NRC 707 n.20 (2010)

Gulf States Utilities Co. (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994)
- although the contention admissibility rule imposes on a petitioner the burden of going forward with a sufficient factual basis, it does not shift the ultimate burden of proof from applicant to petitioner; LBP-10-24, 72 NRC 756-57 (2010)
- for factual disputes, petitioner need not proffer facts in formal affidavit or evidentiary form sufficient to withstand a summary disposition motion; LBP-10-24, 72 NRC 756-57 (2010)
- petitioner is not required to prove its case at the contention admission stage; LBP-10-24, 72 NRC 756-57 (2010)
- petitioner must present sufficient information to show a genuine dispute reasonably indicating that a further inquiry is appropriate; LBP-10-24, 72 NRC 756-57 (2010)
- the level of support necessary for an admissible contention is explained; LBP-10-24, 72 NRC 756-57 (2010)

Hamm v. Members of Board of Regents of State of Florida, 708 F.2d 647, 651, *reh'g denied,* 715 F.2d 580 (11th Cir. 1983)
- friction between the court and counsel, including intemperate and impatient remarks by the judge, does not constitute evidence of personal bias; CLI-10-17, 72 NRC 47 (2010)

Havasupai Tribe v. United States, 752 F. Supp. 1471 (D. Ariz. 1990)
- preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 391 (2010)

Hells Canyon Alliance v. United States Forest Service, 227 F.3d 1170, 1184-85 (9th Cir. 2000)
- NEPA requirements are tempered by a practical rule of reason; CLI-10-22, 72 NRC 208 (2010)

Highway J Citizens Group v. Mineta, 349 F.3d 938, 960-61 (7th Cir. 2003)
- in considering alternatives under NEPA, an agency is required to address the purpose of the proposed project, reasonable alternatives to the project, and to what extent the agency should explore each particular reasonable alternative; CLI-10-18, 72 NRC 77-78 n.119 (2010)

Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), CLI-82-9, 15 NRC 1363, 1365-67 (1982)
- the disqualification standard under 28 U.S.C. § 455 is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification under 10 C.F.R. 2.313, and it provides a helpful framework for such an assessment; CLI-10-22, 72 NRC 203 (2010)

Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), CLI-82-9, 15 NRC 1363, 1366 (1982)
- extra-record conduct such as stares, glares, and scowls do not constitute evidence of personal bias, nor do occasional outbursts toward counsel; CLI-10-17, 72 NRC 47 (2010)

Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), LBP-79-27, 10 NRC 563, 566 (1979), *aff'd,* ALAB-575, 11 NRC 14 (1980)
- collateral estoppel is applicable if the issue sought to be precluded is the same as that involved in the prior action, the issue was actually litigated in a prior action, there is a valid and final judgment in the prior action, and the determination was essential to the prior judgment; CLI-10-23, 72 NRC 249 (2010)

Hughes River Watershed Conservancy v. Glickman, 81 F.3d 437, 443 (4th Cir. 1996)
- the principal goals of an environmental impact statement are to force agencies to take a hard look at the environmental consequences of a proposed project, and, by making relevant analyses openly available, to permit the public a role in the agency's decisionmaking process; LBP-10-24, 72 NRC 763 n.86 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-9, 47 NRC 326, 330 (1998)
- the Commission does not use procedural technicalities to avoid addressing disqualification motions; CLI-10-17, 72 NRC 45 n.246 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-9, 47 NRC 326, 331 (1998)
- the disqualification standard under 28 U.S.C. § 455 is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification

under 10 C.F.R. 2.313, and it provides a helpful framework for such an assessment; CLI-10-22, 72 NRC 203 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 8 (1999)
section 40.31(h) applies to uranium mills, not to in situ leach facilities; LBP-10-16, 72 NRC 434 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 9 (1999)
the principal regulatory standards for in situ leach applications are 10 C.F.R. 40.32(c) and (d), which mandate protection of public health and safety; LBP-10-16, 72 NRC 434 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-00-8, 51 NRC 227, 240 n.15 (2000)
a surety arrangement is necessary as a prerequisite to operating, not as a prerequisite to licensing; LBP-10-16, 72 NRC 430 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 269 (1998), *rev'd on other grounds,* CLI-98-16, 48 NRC 119 (1998)
to assert an appropriate injury for organizational standing, an organization must demonstrate a palpable injury in fact to its organizational interests; LBP-10-16, 72 NRC 383 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 271 (1998), *rev'd on other grounds,* CLI-98-16, 48 NRC 119 (1998)
to obtain standing, an organization must demonstrate an effect upon its organizational interests or show that at least one of its members would suffer injury as a result of the challenged action, sufficient to confer upon it representational standing; LBP-10-16, 72 NRC 389 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 272 (1998), *rev'd on other grounds,* CLI-98-16, 48 NRC 119 (1998)
a board's standing analysis must avoid the familiar trap of confusing the standing determination with the assessment of a petitioner's case on the merits; LBP-10-16, 72 NRC 388 (2010)

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)
standing can be granted to petitioner in a materials licensing case where that petitioner uses a substantial quantity of water personally or for livestock from a source that is reasonably contiguous to either the injection or processing sites; LBP-10-16, 72 NRC 384 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-98-9, 47 NRC 261, 280 (1998), *rev'd on other grounds,* CLI-98-16, 48 NRC 119 (1998)
the organization or format of an application is not germane to license issuance because the objection to the application's organization is not an objection to the licensing action at issue in the proceeding; LBP-10-16, 72 NRC 403 (2010)

Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), LBP-99-1, 49 NRC 29, 33 (1999)
although Part 40 generally applies to in situ leach mining, Appendix A to Part 40, including Criterion 1, was designed to address the problems related to mill tailings and not problems related to injection mining; LBP-10-16, 72 NRC 434 (2010)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-00-12, 52 NRC 1, 5 (2000)
an untimely motion to reopen must demonstrate that the issue raised is not merely significant but exceptionally grave; LBP-10-21, 72 NRC 643 (2010)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 44 (2001)
it is inappropriate, perhaps even impossible, for an intervenor to prove at the contention admissibility stage that correcting an error or omission in the environmental report or environmental impact statement would, in fact, change the NRC's ultimate decision; LBP-10-14, 72 NRC 129 n.182 (2010)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 53 (2001)
there is no per se regulatory bar that precludes the Staff from using the hearing process to clarify the administrative record supporting its final environmental assessment, and that record, along with any adjudicatory decision, becomes, in effect, part of the final environmental document; CLI-10-18, 72 NRC 68 (2010)

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Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001)
when reviewing a discrete license application filed by a private applicant, a federal agency may appropriately accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project; CLI-10-18, 72 NRC 78 (2010); LBP-10-14, 72 NRC 110 (2010)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-33, 60 NRC 581, 596 (2004)
Staff guidance documents are not legally binding, but can be useful in instances where legal authority is lacking; LBP-10-16, 72 NRC 430 n.366 (2010)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-39, 60 NRC 657, 658 (2004)
licensing boards include two judges with technical expertise; CLI-10-17, 72 NRC 50 n.276 (2010)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), LBP-04-3, 59 NRC 84, 88 (2004)
applicant must establish a surety arrangement that ensures sufficient funds will be available for decommissioning and decontamination of an NRC-licensed source materials site; LBP-10-16, 72 NRC 430 (2010)

Hydro Resources, Inc. (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-1, 63 NRC 1, 2 (2006)
on appeal, the Commission defers to a board's factual findings, correcting only clearly erroneous findings, i.e., findings not even plausible in light of the record viewed in its entirety; CLI-10-18, 72 NRC 73 (2010)

Hydro Resources, Inc. (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-7, 63 NRC 165, 166 (2006)
Commission review is in the public interest if the decision could affect pending and future license renewal determinations; CLI-10-17, 72 NRC 13 (2010)

Hydro Resources, Inc. (P.O. Box 777, Crownpoint, New Mexico 87313), CLI-06-14, 63 NRC 510, 516 (2006)
the plain language of a regulation is controlling; LBP-10-22, 72 NRC 672 n.37 (2010)

Hydro Resources, Inc. (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-05-26, 62 NRC 442, 450 (2005)
cultural and historic resources are to be considered as part of the environmental impacts assessment that must be completed; LBP-10-16, 72 NRC 418 (2010)

Hydro Resources, Inc. (P.O. Box 777, Crownpoint, New Mexico 87313), LBP-06-19, 64 NRC 53, 62 n.3 (2006)
although NRC gives substantial deference to Council on Environmental Quality regulations, it is not bound to follow them; LBP-10-16, 72 NRC 437 (2010)

'Ilio'ulaokalani Coalition v. Rumsfeld, 464 F.3d 1083, 1092 (9th Cir. 2006)
primary obligation to satisfy the requirements of NEPA rests on the agency; CLI-10-18, 72 NRC 82 (2010)

Illinois Power Co. (Clinton Power Station, Units 1 and 2), ALAB-340, 4 NRC 27, 33-34 (1976)
computer models and associated documentation are within the scope of discovery under NRC regulations; LBP-12-23, 72 NRC 703 (2010)

Illinois Power Co. (Clinton Power Station, Units 1 and 2), ALAB-340, 4 NRC 27, 34 (1976)
intervenor's request that applicant bring to the evidentiary hearing the underlying data on computer models that applicant's expert had used in forecasting lifetime fuel cycle costs covered the source decks, data decks, computer programs, and documentation upon which the models were based; LBP-12-23, 72 NRC 703 (2010)

Illinois Power Co. (Clinton Power Station, Unit 1), LBP-81-61, 14 NRC 1735, 1738 (1981)
although the phrase "possession, custody, or control," is used, no relevant interpretation or construction of the phrase, or of the term control, is provided; LBP-12-23, 72 NRC 706 (2010)

In re Aguinda, 241 F.3d 194, 201 (2d Cir. 2001)
under 28 U.S.C. § 455(a), a showing is required that would cause an objective, disinterested observer fully informed of the underlying facts to entertain significant doubt that justice would be done absent recusal; CLI-10-22, 72 NRC 206 (2010)

In re Aguinda, 241 F.3d 194, 204-05 (2d Cir. 2001)
mere experience or background in a relevant technical field does not imply knowledge of the specific disputed facts in a case; CLI-10-22, 72 NRC 206 (2010)

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In re Bankers Trust Co., 61 F.3d 465, 469 (6th Cir. 1995)
production of documents is required if the party has practical ability to obtain the documents from another, irrespective of his legal entitlement to the documents; LBP-12-23, 72 NRC 708 n.22 (2010)

In re Domestic Air Transportation Antitrust Litigation, 142 F.R.D. 354, 356-57 (D. Ga. 1992)
defendants were required to request that their employees order a copy of transcripts of their deposition testimony given to a government agency; LBP-12-23, 72 NRC 708 n.23 (2010)

In re Sherwin-Williams Co., 607 F.3d 474, 477 (7th Cir. 2010)
that an unreasonable person, focusing on only one aspect of the story, might perceive a risk of bias is irrelevant; CLI-10-22, 72 NRC 206 (2010)

Indiana Lumbermens Mutual Insurance Co. v. Reinsurance Results, Inc., 513 F.3d 652, 658 (7th Cir.), *cert. denied,* 555 U.S. 884 (2008)
issues may arise about which the presiding judges lack specific expertise, but they use their training, experience, knowledge, and judgment to ask the right questions and reach sound decisions; CLI-10-17, 72 NRC 50 n.277 (2010)

Inquiry into Three Mile Island Unit 2 Leak Rate Data Falsification, LBP-87-15, 25 NRC 671, 783 (1987)
a board's findings regarding a particular witness's knowledge or state of mind generally depend largely on that witness's credibility; CLI-10-23, 72 NRC 226 n.65 (2010)

International Uranium (USA) Corp. (Request for Materials License Amendment), CLI-00-1, 51 NRC 9, 19 (2000)
guidance documents do not create binding legal requirements; CLI-10-24, 72 NRC 467 (2010)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-98-6, 47 NRC 116, 117 n.1 (1998)
in cases involving ISL uranium mining and other source materials licensing, petitioner must demonstrate injury, causation, and redressability because proximity to the proposed facility alone is not adequate to demonstrate standing; LBP-10-16, 72 NRC 384 (2010)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-01-18, 54 NRC 27, 30 (2001)
petitioner cannot base standing or a contention on the possibility that the licensee will violate the terms of its license; CLI-10-20, 72 NRC 193 n.45 (2010)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-02-13, 55 NRC 269, 273 (2002)
boards case management decisions, such as determinations of whether to permit additional slide shows or enlarged exhibits, lie well within the discretion of the board; CLI-10-17, 72 NRC 47 n.254 (2010)
in procedural and scheduling matters, where first-hand contact with and appreciation for all the circumstances surrounding a case are necessary, maximum reliance on the proper discretion of a presiding officer is essential; CLI-10-17, 72 NRC 47 n.255 (2010)

International Uranium (USA) Corp. (White Mesa Uranium Mill), LBP-01-8, 53 NRC 204, 207-08 (2001)
pro se petitioners are held to less rigid pleading standards, so that parties with a clear but imperfectly stated interest in the proceeding are not excluded; CLI-10-20, 72 NRC 192 (2010)

Japan Halon Co. v. Great Lakes Chemical Corp., 155 F.R.D. 626, 627 (N.D. Ind. 1993)
in the context of analyzing the "control" issue, Fed. R. Civ. P. 34 is to be liberally construed; LBP-12-23, 72 NRC 707 n.21 (2010)

Johnston v. Davis, 698 F.2d 1088, 1095 (10th Cir. 1983)
where the information in the initial environmental impact statement is so incomplete or misleading that the decisionmaker and the public cannot make an informed comparison of the alternatives, revision of an EIS may be necessary to provide a reasonable, good-faith, and objective presentation of the subjects required by NEPA; LBP-10-24, 72 NRC 762 (2010)

Joseph J. Macktal, CLI-89-14, 30 NRC 85, 91 (1989)
a judge's use of strong language toward a party or in expressing his views on matters before him do not constitute evidence of personal bias; CLI-10-17, 72 NRC 47 (2010)

Joseph J. Macktal, CLI-89-14, 30 NRC 85, 91-92 (1989)
to prevail on a disqualification motion, petitioner must show either a bias against petitioner or its counsel based on matters outside the record or a pervasive bias against petitioner based upon matters in the record; CLI-10-17, 72 NRC 46 n.252 (2010)

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Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1), ALAB-327, 3 NRC 408, 411, 413 (1976)
certifying a matter involving a board decision directing unrestricted disclosure of a document the applicant claimed to be proprietary is appropriate when the interlocutory discovery order involved must be reviewed immediately or not at all; CLI-10-29, 72 NRC 561 n.32 (2010)

Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1), ALAB-424, 6 NRC 122, 124 (1977)
a filing that was 3 days late, which the board characterized as not excessively late, was accepted based on findings that intervenor offered a reasonable explanation for the delay and the delay did not prejudice any of the other parties; LBP-10-21, 72 NRC 637 (2010)

Kansas Gas & Electric Co. (Wolf Creek Generating Station, Unit 1), ALAB-424, 6 NRC 122, 125 (1977)
in the event of some eleventh hour unforeseen development, a party may tender a document belatedly, but the tender must be accompanied by a motion for leave to file out-of-time which satisfactorily explains not only the reason for the lateness, but also why a motion for an extension of time could not have been seasonably submitted; CLI-10-26, 72 NRC 477 n.17 (2010)

Kansas Gas and Electric Co. (Wolf Creek Generating Station, Unit 1), ALAB-424, 6 NRC 122, 126 (1977)
intervenor's appeal 3 days out of time was accepted when applicants' motion to strike failed to even hint at prejudice; LBP-10-21, 72 NRC 638 n.8 (2010)

Kansas Gas & Electric Co. (Wolf Creek Generating Station, Unit 1), CLI-77-1, 5 NRC 1, 8 (1977)
even if offsite construction does not appear to be part of the plan, it does not follow that offsite consequences need not be considered; CLI-10-18, 72 NRC 91 (2010)

Kelley v. Selin, 42 F.3d 1501 (6th Cir. 1995)
in the area of waste storage, the Commission largely has chosen to proceed generically through the rulemaking process instead of litigating issues case-by-case in adjudicatory proceedings; CLI-10-19, 72 NRC 99 (2010)

Kelley v. Selin, 42 F.3d 1501, 1507-08 (6th Cir. 1995)
to determine whether petitioners have standing, boards accept as true all material allegations of the complaint and construe the complaint in favor of the complaining party; CLI-10-20, 72 NRC 192 n.39 (2010)

Kelley v. Selin, 42 F.3d 1501, 1508 (6th Cir. 1995)
although boards may view petitioner's supporting information in a light favorable to petitioner, it cannot do so by ignoring contention admissibility rules, which require the petitioner (not the board) to supply all of the required elements for a valid intervention petition; CLI-10-20, 72 NRC 192 n.39 (2010)

Kennedy v. U.S. Construction Co., 545 F.2d 81, 84 n.1 (8th Cir. 1976)
the civil law concept of "assumption of risk" requires not merely general knowledge of a risk but also that the risk assumed be specifically known, understood, and appreciated; CLI-10-23, 72 NRC 223 (2010)

Kenneth G. Pierce (Shorewood, Illinois), CLI-95-6, 41 NRC 381, 382 (1995)
to show clear error, appellant must demonstrate that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-23, 72 NRC 225 (2010)
the fact that the board accorded greater weight to one party's evidence than to the other's is not a basis for overturning the initial decision; CLI-10-23, 72 NRC 225 n.62 (2010)

King v. U.S. Department of Justice, 830 F.2d 210, 217 (D.C. Cir. 1987)
a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed *de novo*; CLI-10-24, 72 NRC 461 (2010)

Laguna Greenbelt, Inc. v. U.S. Department of Transportation, 42 F.3d 517, 528 (9th Cir. 1994)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

Lambert v. Will Bros. Co., 596 F.2d 799, 802 (8th Cir. 1979)
the civil law concept of "assumption of risk" requires not merely general knowledge of a risk but also that the risk assumed be specifically known, understood, and appreciated; CLI-10-23, 72 NRC 223 (2010)

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Lands Council v. McNair, 537 F.3d 981, 1001-09 (9th Cir. 2008), *abrogated in part on other grounds by Winter v. Natural Resources Defense Council, Inc.,* 555 U.S. 7 (2008)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 725 (3d Cir. 1989)
NRC has recognized its obligation to comply with NEPA and has promulgated the regulations in Part 51, which govern the consideration of the environmental impact of the licensing and regulatory actions of the agency; LBP-10-16, 72 NRC 437 n.424 (2010)

Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 729-31 (3d Cir. 1989)
the Atomic Energy Act and the National Environmental Policy Act contemplate separate NRC reviews of proposed licensing actions; CLI-10-18, 72 NRC 91 (2010)

Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 739 (3d Cir. 1989)), *vacated on other grounds,* CLI-90-4, 31 NRC 333 (1990)
impacts that are remote and speculative or inconsequentially small need not be examined; LBP-10-14, 72 NRC 110 (2010)

Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 739, 745 (3d Cir. 1989)
NEPA does not require consideration of remote and speculative risks, but there must be a finding that something is remote and speculative to preclude it from further analysis, and there must be support in the agency's record of decision to justify this finding; LBP-10-14, 72 NRC 117 n.91 (2010)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-743, 18 NRC 387, 397 (1983)
good cause for late filing is the most important factor, and failure to meet this factor considerably enhances the burden of showing that the other factors justify admission of a late-filed petition; LBP-10-21, 72 NRC 648 (2010)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-743, 18 NRC 387, 399, 402 (1983)
factors (vii) and (viii) of 10 C.F.R. 2.309(c)(1) are generally considered to have the most significance in the balancing process in instances in which there are no other parties or ongoing related proceedings; LBP-10-21, 72 NRC 648 (2010)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-788, 20 NRC 1102, 1151 (1984)
mere demonstration that a board erred is not sufficient to warrant appellate relief, but rather the complaining party must demonstrate actual prejudice, i.e., that the ruling had a substantial effect on the outcome of the proceeding; CLI-10-23, 72 NRC 245 n.175, 247 (2010)
to prevail in a disqualification motion, petitioner first must demonstrate that the purported instances of bias had a substantial impact on the outcome of the proceeding; CLI-10-17, 72 NRC 46 (2010)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-788, 20 NRC 1102, 1155-56 (1984)
appellant failed to make an offer of proof in connection with any affirmative expert testimony it would have put forward; CLI-10-23, 72 NRC 246 n.180 (2010)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-84-20, 20 NRC 1061, 1078 n.46 (1984)
the standard for disqualification of a judge under 28 U.S.C. § 455 is whether the reasonable person who knows all the circumstances, would harbor doubts about the judge's impartiality; CLI-10-22, 72 NRC 205 (2010)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-2, 33 NRC 61, 71 (1991)
NRC is not required to consider every imaginable alternative to a proposed action, but rather only reasonable alternatives; LBP-10-14, 72 NRC 110 (2010)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-8, 33 NRC 461, 471 (1991)
abeyance request is denied on the ground that there is nothing before the New York Court of Appeals that is central to the Commissions decisions; CLI-10-17, 72 NRC 10 n.34 (2010)
although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 10 n.32 (2010)

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Los Angeles v. Lyons, 461 U.S. 95, 105-06 (1983)
standing generally has been denied when the threat of injury is not concrete and particularized; LBP-10-16, 72 NRC 381 (2010)

Louisiana Crawfish Producers Association–West v. Rowan, 463 F.3d 352, 357 n.2 (5th Cir. 2006)
agencies must consider a range of alternatives under NEPA and provide adequate explanation for their rejection; CLI-10-18, 72 NRC 84 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-95-7, 41 NRC 383, 384 (1995)
because it disfavors piecemeal appeals, the Commission will grant interlocutory review only in extraordinary circumstances; CLI-10-29, 72 NRC 560 (2010)
licensing board decisions denying a petition for waiver are interlocutory and not immediately reviewable; CLI-10-29, 72 NRC 560 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-97-7, 45 NRC 437, 438-39 (1997)
NRC regulations contemplate *amicus curiae* briefs only after the Commission grants a petition for review, and do not provide for *amicus* briefs supporting or opposing petitions for review; CLI-10-17, 72 NRC 6-7 n.16 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87 (1998)
the principal goals of an environmental impact statement are to force agencies to take a hard look at the environmental consequences of a proposed project, and, by making relevant analyses openly available, to permit the public a role in the agency's decisionmaking process; LBP-10-24, 72 NRC 763 n.86 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 89 (1998)
primary obligation to satisfy the requirements of NEPA rests on the agency; CLI-10-18, 72 NRC 82 (2010)
there is no per se regulatory bar that precludes the Staff from using the hearing process to clarify the administrative record supporting its final environmental assessment, and that record, along with any adjudicatory decision, becomes, in effect, part of the final environmental document; CLI-10-18, 72 NRC 68 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93 (1998)
the Commission will not lightly reverse licensing board factual determinations and will not overturn a board's findings simply because the Commission might have reached a different result; CLI-10-18, 72 NRC 80 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 93-94 (1998)
the Commission will not overturn a hearing judge's findings simply because the Commission might have reached a different result; CLI-10-23, 72 NRC 241 n.153 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 103 (1998)
the agency has broad discretion to determine how thoroughly it needs to analyze a particular subject for NEPA compliance; LBP-10-14, 72 NRC 110 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 104 (1998)
an environmental impact statement must include a detailed statement of reasonable alternatives to a proposed action; LBP-10-24, 72 NRC 755 (2010)

Louisiana Energy Services, L.P. (Claiborne Enrichment Center), LBP-94-11, 39 NRC 205, 212 (1994)
intervenor that has sufficient information to file a NEPA contention but delays that filing until publication of the environmental impact statement does so at its peril; LBP-10-24, 72 NRC 732 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-05-20, 62 NRC 523, 536 (2005)
an agency can dispense with an examination of these less significant impacts because NEPA requires only an estimate of anticipated, but not unduly speculative, impacts; LBP-10-14, 72 NRC 110 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-05-28, 62 NRC 721, 723 (2005)
on appeal, the Commission refrains from exercising its authority to make *de novo* findings of fact in situations where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-10-18, 72 NRC 72-73 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-05-28, 62 NRC 721, 726 (2005)
determination of economic benefits and costs that are tangential to environmental consequences are within a wide area of agency discretion; LBP-10-24, 72 NRC 771 (2010)

NEPA imposes procedural requirements on the NRC to take a hard look at the environmental impacts of building and operating a nuclear reactor; LBP-10-14, 72 NRC 110 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-06-15, 63 NRC 687, 697 (2006)
licensing boards include two judges with technical expertise; CLI-10-17, 72 NRC 50 n.276 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-06-22, 64 NRC 37, 40 (2006)
although the Commission has discretion to review all underlying factual issues *de novo,* it is disinclined to do so where a board has weighed arguments presented by experts and rendered reasonable, record-based factual findings; CLI-10-18, 72 NRC 73 (2010)
on appeal, the Commission defers to a board's factual findings, correcting only clearly erroneous findings, i.e., findings not even plausible in light of the record viewed in its entirety; CLI-10-18, 72 NRC 73 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), LBP-04-14, 60 NRC 40, 72 & n.18 (2004)
although the phrase "possession, custody, or control," is used, no relevant interpretation or construction of the phrase, or of the term control, is provided; LBP-12-23, 72 NRC 706 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), LBP-06-8, 63 NRC 241, 257 n.14 (2006)
as an independent agency, NRC has the authority to promulgate its own regulations implementing NEPA and is only bound by Council on Environmental Quality regulations when the NRC expressly adopts them; LBP-10-16, 72 NRC 437 (2010)

Louisiana Energy Services, L.P. (National Enrichment Facility), LBP-06-8, 63 NRC 241, 258-59 (2006)
the NEPA hard-look doctrine is subject to a rule of reason that the Commission has interpreted as obligating the agency to consider all reasonable alternatives to the proposed action; LBP-10-14, 72 NRC 110 (2010)

Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3), ALAB-732, 17 NRC 1076, 1096 (1983)
mere demonstration that a board erred is not sufficient to warrant appellate relief, but rather the complaining party must demonstrate actual prejudice, i.e., that the ruling had a substantial effect on the outcome of the proceeding; CLI-10-23, 72 NRC 245 n.175 (2010)
to prevail in a disqualification motion, petitioner first must demonstrate that the purported instances of bias had a substantial impact on the outcome of the proceeding; CLI-10-17, 72 NRC 46 (2010)

Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 (1992)
injury-in-fact is defined as an invasion of a legally protected interest that is concrete and particularized and actual or imminent rather than conjectural or hypothetical; LBP-10-16, 72 NRC 381 (2010)
to establish causation, petitioner must show that there is a causal connection between the injury and the conduct complained of, i.e., the injury must be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court; LBP-10-16, 72 NRC 382 (2010)

Lujan v. Defenders of Wildlife, 504 U.S. 555, 560 n.1 (1992)
an injury-in-fact must go beyond generalized grievances to affect a petitioner in a personal and individual way; LBP-10-16, 72 NRC 381 (2010)

Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992)
to establish standing in federal court, a party must show injury-in-fact, causation, and redressability; LBP-10-16, 72 NRC 380 (2010)

Lujan v. Defenders of Wildlife, 504 U.S. 555, 561 (1992)
where a facility will not be located within an Indian tribes boundaries, the tribe must meet the standing requirements imposed by 10 C.F.R. 2.309(d)(1); LBP-10-16, 72 NRC 390-91 (2010)

Lujan v. Defenders of Wildlife, 504 U.S. 555, 572 n.7 (1992)
a party claiming violations of their procedural right to protect their interests in cultural resources is to be accorded a special status when it comes to standing without meeting all the normal standards for redressability and immediacy; LBP-10-16, 72 NRC 393 (2010)

Lujan v. Defenders of Wildlife, 504 U.S. 555, 572-73 nn.7-8 (1992)
to establish an injury in fact, a party merely has to show some threatened concrete interest personal to the party that the National Historic Preservation Act was designed to protect; LBP-10-16, 72 NRC 393 (2010)

Lujan v. Defenders of Wildlife, 504 U.S. 555, 573 n.7 (1992)
someone living adjacent to the site for proposed construction of a federally licensed facility has standing to challenge the licensing agency's failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the facility will not be completed for many years; LBP-10-24, 72 NRC 763 n.87 (2010)

Luminant Generation Co. (Comanche Peak Nuclear Power Plant, Units 3 and 4), LPB-10-10, 71 NRC 529, 588-89 (2010)
even if intervenor's support is not optimal at this point, it is sufficient to permit further inquiry into the feasibility and reasonable availability under NEPA of the alternative of a combination of wind and solar energy with storage and natural gas supplementation to produce baseload power; LBP-10-24, 72 NRC 765 (2010)

Maine Yankee Atomic Power Co. (Maine Yankee Atomic Power Station), ALAB-161, 6 AEC 1003, 1007 (1973), *remanded on other grounds,* CLI-74-2, 7 AEC 2 (1974), *further statement of Appeal Board views,* ALAB-175, 7 AEC 62 (1974), *aff'd sub nom. Citizens for Safe Power v. NRC,* 524 F.2d 1291 (D.C. Cir. 1975)
the cost-benefit analysis involves the scrutiny of many factors, among them, offsetting benefits, available alternatives, and the possible means (and attendant costs) of reducing the environmental harm; LBP-10-24, 72 NRC 746 n.51 (2010)

Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989)
NEPA requires federal agencies to consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives; LBP-10-24, 72 NRC 729 n.16 (2010)

Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371-72 (1989)
if new and significant information arises between the issuance of the environmental impact statement and the agency decision, then the agency must revise its EIS and consider such information; LBP-10-15, 72 NRC 304, 305-06 (2010)
when dealing with a request to waive an environmental regulation under 10 C.F.R. 2.335(b), NRC should use the significant new information criterion; LBP-10-15, 72 NRC 301 (2010)

Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 373-74 (1989)
NRC Staff is obliged under NEPA to supplement its environmental review documents if there is new and significant information; CLI-10-29, 72 NRC 563 (2010)

Methow Valley Citizens Council v. Regional Forester, 833 F.2d 810, 815, 816 (9th Cir. 1987) *rev'd and remanded on other grounds, Robertson v. Methow Valley Citizens Council,* 490 U.S. 332 (1989), *aff'd on remand,* 879 F.2d 705, 706 (9th Cir. 1989)
although substantial weight is accorded to a license applicant's preferences, if the identified purpose of a proposed project reasonably may be accomplished at locations other than the proposed site, the board may require consideration of those alternative sites; CLI-10-18, 72 NRC 81 n.145 (2010)

Metropolitan Council of NAACP Branches v. Federal Communications Commission, 46 F.3d 1154, 1164-65 (D.C. Cir. 1995)
the disqualification standard under 28 U.S.C. § 455 is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification under 10 C.F.R. 2.313, and it provides a helpful framework for such an assessment; CLI-10-22, 72 NRC 203 (2010)

Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), ALAB-698, 16 NRC 1290, 1299 (1982), *rev'd in part on other grounds,* CLI-83-22, 18 NRC 299 (1983)
the adequacy of guidance may be litigated in individual licensing proceedings; CLI-10-17, 72 NRC 32-33 n.185 (2010)

Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), ALAB-807, 21 NRC 1195, 1214 (1985)
protective orders and in camera proceedings are the customary and favored means of handling disputes that arise in which one party to a proceeding seeks purportedly proprietary information from another; CLI-10-24, 72 NRC 463 n.74 (2010)

Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), CLI-85-5, 21 NRC 566, 569 (1985)
a judge's use of strong language toward a party or in expressing his views on matters before him do not constitute evidence of personal bias; CLI-10-17, 72 NRC 47 (2010)

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Metropolitan Edison Co. (Three Mile Island Nuclear Station, Unit 1), LBP-85-30, 22 NRC 332, 396 (1985)
a board's findings regarding a particular witness's knowledge or state of mind depend, as a general rule, largely on that witness's credibility; CLI-10-23, 72 NRC 226 n.65 (2010)

Muckleshoot Indian Tribe v. U.S. Forest Service, 177 F.3d 800 (9th Cir. 1999)
by considering only a no-action alternative along with two virtually identical alternatives, the agency failed to consider a reasonable range of alternatives under NEPA; CLI-10-18, 72 NRC 84 n.162 (2010)
tribes that have addressed procedural violations of the National Historic Preservation Act have uniformly been granted standing under the relaxed standard and have proceeded directly to the merits of the NHPA claim; LBP-10-16, 72 NRC 393 n.123 (2010)

Naragansett Indian Tribe v. Warwick Sewer Authority, 334 F.3d 161 (1st Cir. 2003)
tribes that have addressed procedural violations of the National Historic Preservation Act have uniformly been granted standing under the relaxed standard and have proceeded directly to the merits of the NHPA claim; LBP-10-16, 72 NRC 393 n.123 (2010)

National Credit Union Administration v. First National Bank, 522 U.S. 479, 492 (1998)
to determine whether an interest is in the zone of interests of a statute, it is necessary first to discern the interests arguably to be protected by the statutory provision at issue and then to inquire whether petitioner's interests affected by the agency action are among them; LBP-10-16, 72 NRC 381 (2010)

National Wildlife Federation v. Andrus, 440 F. Supp. 1245, 1254 (D.D.C. 1977)
where the information in the initial environmental impact statement is so incomplete or misleading that the decisionmaker and the public cannot make an informed comparison of the alternatives, revision of an EIS may be necessary to provide a reasonable, good-faith, and objective presentation of the subjects required by NEPA; LBP-10-24, 72 NRC 762 (2010)

Native Ecosystems Council v. U.S. Forest Service, 428 F.3d 1233, 1245 (9th Cir. 2005)
it is not enough to consider only the proposed action and the no-action alternative in an environmental assessment; CLI-10-18, 72 NRC 84 (2010)

Native Ecosystems Council v. U.S. Forest Service, 428 F.3d 1233, 1246 (9th Cir. 2005)
adequacy of the NEPA alternatives analysis is judged on the substance of the alternatives rather than the sheer number of alternatives examined; CLI-10-18, 72 NRC 78 (2010)
as long as all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated, the regulatory requirement is satisfied; CLI-10-18, 72 NRC 78 (2010)
NRC regulations do not impose a numerical floor on alternatives to be considered; CLI-10-18, 72 NRC 78 (2010)

Native Ecosystems Council v. U.S. Forest Service, 428 F.3d 1233, 1247 (9th Cir. 2005)
alternatives that do not advance the purpose of the project will not be considered reasonable or appropriate; CLI-10-18, 72 NRC 78 (2010)

Natural Resources Defense Council, Inc. v. Environmental Protection Agency, 22 F.3d 1125, 1134 (D.C. Cir. 1994)
an agency is not authorized to grant conditional approval to plans that do nothing more than promise to do tomorrow what the statute requires today; LBP-10-20, 72 NRC 602 n.36 (2010)

Natural Resources Defense Council, Inc. v. Morton, 458 F.2d 827, 834 (D.C. Cir. 1972)
the rule of reason is implicit in NEPA's requirement that an agency consider reasonable alternatives to a proposed action; CLI-10-18, 72 NRC 75 (2010)

Natural Resources Defense Council, Inc. v. U.S. Forest Service, 421 F.3d 797, 810-12 (9th Cir. 2005)
where the information in the initial environmental impact statement is so incomplete or misleading that the decisionmaker and the public cannot make an informed comparison of the alternatives, revision of an EIS may be necessary to provide a reasonable, good-faith, and objective presentation of the subjects required by NEPA; LBP-10-24, 72 NRC 762 (2010)

Neighbors of Cuddy Mountain v. U.S. Forest Service, 137 F.3d 1372, 1380 (9th Cir. 1998)
under the National Environmental Policy Act, general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided; CLI-10-18, 72 NRC 74 (2010)

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New England Power Co. (NEP, Units 1 and 2), LBP-78-9, 7 NRC 271, 278-79 (1978)
boards do not direct the Staff in the performance of its administrative functions; LBP-10-17, 72 NRC 514 (2010)

New Jersey Department of Environmental Protection v. NRC, 561 F.3d 132 (3d Cir. 2009)
terrorist attacks are outside the scope of NEPA; LBP-10-15, 72 NRC 319 (2010)

New Jersey Department of Environmental Protection v. NRC, 561 F.3d 132, 139, 141 (3d Cir. 2009)
effects or impacts of risks that are too remote do not require a NEPA analysis; LBP-10-14, 72 NRC 117 n.91 (2010)

New Jersey Department of Environmental Protection v. NRC, 561 F.3d 132, 143-44 (3d Cir. 2009)
even if NEPA required an assessment of the environmental effects of a hypothetical terrorist attack on a nuclear facility, NRC has already made this assessment in the generic environmental Impact statement and a site-specific supplemental environmental impact statement; LBP-10-15, 72 NRC 319 (2010)

New Jersey Department of Environmental Protection v. NRC, 561 F.3d 132, 144 (3d Cir. 2009)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information, and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

New Mexico ex rel. Richardson v. Bureau of Land Management, 565 F.3d 683, 703 (10th Cir. 2009)
NEPA requires federal agencies to consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives; LBP-10-24, 72 NRC 729 n.16 (2010)

New York v. NRC, 589 F.3d 551 (2d Cir. 2009)
the Commission denied a petition for rulemaking asking it to reevaluate spent fuel storage impacts on a site-specific basis; LBP-10-15, 72 NRC 299 (2010)

New York v. NRC, 589 F.3d 551, 555 (2d Cir. 2009)
NRC required terrorism-related mitigation measures it studied to be implemented at all nuclear plants and site-specific studies demonstrated the effectiveness of those mitigation measures so that no additional plant-specific reviews were necessary; LBP-10-15, 72 NRC 314 (2010)
the standard of review of agency decisions in the Courts of Appeals is extremely deferential; LBP-10-15, 72 NRC 316 n.69 (2010)

Niagara Mohawk Power Corp. (Nine Mile Point Nuclear Station, Unit 2), ALAB-264, 1 NRC 347, 352-69 (1975)
the general rule applicable to cases involving differences or changes in demand forecasts is not whether applicant will need additional generating capacity but when; LBP-10-24, 72 NRC 749 (2010)

North Idaho Community Action Network v. U.S. Department of Transportation 545 F.3d 1147, 1153 (9th Cir. 2008)
although analysis provided in an environmental assessment does not have to be as comprehensive as the analysis provided in an environmental impact statement, there must be at least a brief discussion of reasonable alternatives; CLI-10-18, 72 NRC 85 (2010)
the alternatives provision of NEPA § 102(2)(E) applies both when an agency prepares an environmental impact statement and when it prepares an environmental assessment; CLI-10-18, 72 NRC 75 (2010)
to pass legal muster, regardless of whether it was preparing an environmental assessment or an environmental impact statement, Staff had to give full and meaningful consideration to all reasonable alternatives; CLI-10-18, 72 NRC 83 (2010)
when preparing an environmental assessment, the agency only must include a brief discussion of reasonable alternatives; CLI-10-18, 72 NRC 75 (2010)
when preparing an environmental impact statement, the agency must rigorously explore and objectively evaluate all reasonable alternatives; CLI-10-18, 72 NRC 75 (2010)

Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Units 1, 2, and 3), CLI-00-18, 52 NRC 129, 132 (2000)
cursory, unsupported arguments will not be considered; CLI-10-17, 72 NRC 30-31 n.172 (2010); CLI-10-23, 72 NRC 246 n.177 (2010)

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Northeast Nuclear Energy Co. (Millstone Nuclear Power Station, Units 2 and 3), LBP-01-10, 53 NRC 273, 286-87 (2001)
no rule or regulation of the Commission concerning the licensing of production and utilization facilities is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; LBP-10-14, 72 NRC 119 n.108 (2010)

Northern States Power Co. (Pathfinder Atomic Plant), LBP-89-30, 30 NRC 311, 316 (1989)
it would be detrimental to the process to have a person appear in the proceeding individually and to be represented by an organization; LBP-10-16, 72 NRC 390 n.98 (2010)

Novartis Corp. v. Ben Venue Laboratories, Inc., 271 F.3d 1043, 1054 (Fed. Cir. 2001)
without knowing the foundations of computer simulations, a court cannot evaluate whether the simulation is probative, and it would be unfair to render an expert's opinion immune to challenge because its methodology is hidden in an uncommented computer model; LBP-12-23, 72 NRC 704 n.16 (2010)

Nuclear Energy Institute, Inc. v. Environmental Protection Agency, 373 F.3d 1251, 1295 (D.C. Cir. 2004)
section 121 of the Nuclear Waste Policy Act does not require that each barrier provide either wholly independent protection or a specifically quantified amount of protection; LBP-10-22, 72 NRC 681 (2010)

Nuclear Fuel Services, Inc. (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004)
burden is on petitioner to allege a specific and plausible means by which contaminants from mining activities may adversely affect him or her; LBP-10-16, 72 NRC 384 (2010)

Nuclear Information and Resource Service v. NRC, 509 F.3d 562, 571 (D.C. Cir. 2007)
an agency official should be disqualified only where a disinterested observer may conclude that the official has in some measure adjudged the facts as well as the law of a particular case in advance of hearing it; CLI-10-17, 72 NRC 46 n.252 (2010)
the disqualification standard under 28 U.S.C. § 455 is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification under 10 C.F.R. 2.313, and it provides a helpful framework for such an assessment; CLI-10-22, 72 NRC 203 (2010)

Nuclear Management Co., LLC (Monticello Nuclear Generating Plant), CLI-06-6, 63 NRC 161, 163 (2006)
judicial concepts of standing are generally followed in NRC proceedings; LBP-10-15, 72 NRC 275 (2010)

Nuclear Management Co., LLC (Palisades Nuclear Plant), CLI 06-17, 63 NRC 727, 732 (2006)
a reply may include arguments and alleged facts that are focused on the legal or logical arguments presented in the answers; LBP-10-19, 72 NRC 544 (2010)
licensing boards and the Commission have considered the late-filing criteria even in cases where the factors were not fully addressed by petitioners and/or the NRC Staff or were not addressed at all; LBP-10-24, 72 NRC 743 (2010)

Nulankeyutmonen Nkihtaqmikon v. Impson, 503 F.3d 18 (1st Cir. 2007)
to establish an injury in fact, a party merely has to show some threatened concrete interest personal to the party that the National Historic Preservation Act was designed to protect; LBP-10-16, 72 NRC 393 (2010)

Oncology Services Corp., CLI-93-13, 37 NRC 419, 421 (1993)
the Commission may consider the criteria listed in 10 C.F.R. 2.786(b)(4) when reviewing interlocutory matters on the merits, but when determining whether to undertake such review the standards in section 2.786(g) control the determination; CLI-10-29, 72 NRC 561 n.28 (2010)

Oregon Natural Resources Council Fund v. Goodman, 505 F.3d 884, 897 (9th Cir. 2007)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-644, 13 NRC 903, 923 (1981)
the mere fact of adverse findings and rulings on the merits does not imply a biased attitude on the board's part; CLI-10-17, 72 NRC 46 (2010)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-653, 16 NRC 55, 72 (1982)
prima facie evidence must be legally sufficient to establish a fact or case unless disproved; LBP-10-15, 72 NRC 279-80, 303 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-02-16, 55 NRC 317, 337 (2002)
cursory, unsupported arguments will not be considered on appeal; CLI-10-17, 72 NRC 30-31 n.172 (2010); CLI-10-23, 72 NRC 246 n.177 (2010)
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-10-21, 72 NRC 651 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 237-40 (2002)
the Commission generally declines to hold proceedings in abeyance pending the outcome of other Commission actions or adjudications; CLI-10-17, 72 NRC 10 n.36 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 239 (2002)
it is not sensible to postpone consideration and resolution of various issues having little or nothing to do with the Commission's ongoing review of security requirements following the September 11th attacks; CLI-10-17, 72 NRC 10 n.34 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-03-4, 57 NRC 273, 275-77 (2003)
the Commission generally declines to hold proceedings in abeyance pending the outcome of other Commission actions or adjudications; CLI-10-17, 72 NRC 10 n.36 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1 (2008)
because Staff failed to disclose data underlying its terrorism analysis in the final environmental assessment, it failed to meet the NEPA-mandated hard-look standard; CLI-10-18, 72 NRC 65 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 5-8 (2008)
if good cause for a late filing is not shown, the board may still permit the late filing, but petitioner must make a strong showing on the other late-filing factors; LBP-10-24, 72 NRC 731 (2010)
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; LBP-10-16, 72 NRC 422 n.308 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-8, 67 NRC 193, 197 & n.26 (2008)
good cause is the factor given the greatest weight when ruling on motions for leave to submit late-filed contentions; CLI-10-17, 72 NRC 53 n.304 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 526 & n.87 (2008)
there is no per se regulatory bar that precludes the Staff from using the hearing process to clarify the administrative record supporting its final EA, and that record, along with any adjudicatory decision, becomes, in effect, part of the final environmental document; CLI-10-18, 72 NRC 68 (2010)
Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), LBP-03-11, 58 NRC 47, 66 (2003)
the manner in which the Staff conducts its review is outside the scope of a proceeding; LBP-10-17, 72 NRC 512 (2010)
Pa'ina Hawaii, LLC, CLI-08-4, 67 NRC 171 (2008)
NEPA does not require the NRC to assess the potential health effects of consuming irradiated food; CLI-10-18, 72 NRC 65 (2010)

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Pa'ina Hawaii, LLC, CLI-08-16, 68 NRC 221, 222-23, 230 (2008)
NEPA does not require the NRC to assess the potential health effects of consuming irradiated food; CLI-10-18, 72 NRC 65 (2010)

Pa'ina Hawaii, LLC, LBP-06-12, 63 NRC 403, 414 (2006)
if petitioner makes a prima facie allegation that the application omits information required by law, it necessarily presents a genuine dispute with applicant on a material issue in compliance and raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance; LBP-10-16, 72 NRC 395 (2010)
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 legally required missing information; LBP-10-16, 72 NRC 395 (2010)

Parklane Hosiery Co. v. Shore, 439 U.S. 322, 327-28, 331-32 (1979)
the party to be prevented from relitigating an issue must have been a party to the prior action, but the party seeking to prevent relitigation through the application of collateral estoppel need not have been a party; CLI-10-23, 72 NRC 249-50 (2010)

Perma Research & Development Co. v. Singer Co., 542 F.2d 111, 125 (2d Cir. 1976) (Van Graafeiland, J., dissenting)
a computer model is valid only insofar as it enables one to make valid inferences about the real-world system being simulated; LBP-12-23, 72 NRC 704 n.16 (2010)

Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-778, 20 NRC 42, 49 (1984)
a licensing board erred in holding that it lacked authority to consider contentions based on recent revisions to a license application, but the error was harmless because the intervenor had never submitted any contentions on the revisions; CLI-10-23, 72 NRC 246 n.180 (2010)

Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-828, 23 NRC 13, 21 (1986)
intervenor cannot establish good cause for filing a late contention when the information on which the contention is based was publicly available for some time prior to the filing of the contention; CLI-10-27, 72 NRC 496 n.69 (2010)

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)
contentions that challenge applicable statutory requirements or the basic structure of the agency's regulatory process are inadmissible; LBP-10-21, 72 NRC 651 (2010)
intervenors are precluded from challenging ASME inspection requirements in a combined license proceeding because NRC regulations directly incorporate ASME inspection requirements by reference; LBP-10-21, 72 NRC 656 (2010)

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 simply state the petitioner's views about what regulatory policy should be do not present a litigable issue; LBP-10-21, 72 NRC 651-52 (2010)

Poller v. Columbia Broadcasting System, Inc., 368 U.S. 464, 467 (1962)
summary disposition may be granted only if the truth is clear; LBP-10-20, 72 NRC 579 (2010)

Porter County Chapter of the Izaak Walton League of America, Inc. v. NRC, 606 F.2d 1363, 1370 (D.C. Cir. 1979)
administrative regularity in the regulatory process is assumed, and review of the operating license application takes place independently of that associated with plant construction; CLI-10-29, 72 NRC 562 (2010)

Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 613-14 (1976)
the Commission customarily follows judicial concepts of standing; LBP-10-16, 72 NRC 380 (2010)

Portland General Electric Co. (Pebble Springs Nuclear Plant, Units 1 and 2), CLI-76-27, 4 NRC 610, 614 (1976)
economic impact of a proposed action on ratepayers is outside the scope of a NEPA analysis; LBP-10-14, 72 NRC 126 (2010)

Portland General Electric Co. (Trojan Nuclear Plant), ALAB-534, 9 NRC 287, 289-90 n.6 (1979)
any contention that falls outside the specified scope of the proceeding is inadmissible; LBP-10-17, 72 NRC 511 (2010)

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Potomac Electric Power Co. (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85 (1974)
under longstanding NRC policy, licensing boards should not accept in individual license proceedings contentions that are or are about to become the subject of general rulemaking by the Commission; CLI-10-19, 72 NRC 100 (2010)

Potomac Electric Power Co. (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974)
contentions that attack a Commission rule, or that seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, are inadmissible; LBP-10-21, 72 NRC 651 (2010)

Power Reactor Development Co. v. International Union of Electrical Workers, 367 U.S. 396, 415-16 (1961)
administrative regularity in the regulatory process is assumed, and review of the operating license application takes place independently of that associated with plant construction; CLI-10-29, 72 NRC 562 (2010)

Powertech (USA), Inc. (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 398 (2010)
in the case of unexplained material submitted in support of a contention, the board declines to hunt for information that the agency's procedural rules require be explicitly identified and fully explained; LBP-10-21, 72 NRC 647 (2010)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138 (2010)
because petitioner's circumstances may change from one proceeding to the next, it is important that the presiding officer have up-to-date information regarding any standing claims; LBP-10-21, 72 NRC 641 (2010)
it is generally insufficient to seek to establish standing in a proceeding by merely cross-referencing the showing made in another proceeding, rather than making a new presentation or at least providing a submission that updates the factual information that was provided previously; LBP-10-21, 72 NRC 641 (2010)
petitioner must make a fresh standing demonstration in each individual proceeding in which intervention is sought; LBP-10-21, 72 NRC 640 (2010)
the Commission generally defers to a board's rulings on standing in the absence of clear error or an abuse of discretion; CLI-10-20, 72 NRC 188 (2010)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010)
although boards should afford greater latitude to a pleading submitted by a *pro se* petitioner, that petitioner ultimately bears the burden to provide facts sufficient to show standing; CLI-10-20, 72 NRC 189 (2010)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139-40 (2010)
petitioner's standing showing can be corrected or supplemented to cure deficiencies by means of its reply pleading; LBP-10-21, 72 NRC 640 (2010)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-09-18, 70 NRC 385, 408-11 (2009)
applicant's COLA discussion of LLRW management contained no omission where the applicant addressed the closure of the Barnwell LLRW disposal facility, discussed in detail additional waste minimization measures, and committed to build an additional storage facility in accordance with NRC guidelines if further additional storage became necessary; LBP-10-20, 72 NRC 614 (2010)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-09-18, 70 NRC 385, 410-11 (2009)
low-level radioactive waste contentions were not admissible because of technical defects in the pleadings such as failure to satisfy 10 C.F.R. 2.309(f)(1)(vi), (i), or (ii); LBP-10-20, 72 NRC 600 n.34 (2010)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-09-18, 70 NRC 385, 411, 424 (2009)
regulations do not dictate the duration of onsite low-level radioactive waste storage capacity; LBP-10-20, 72 NRC 600 n.34 (2010)

PPL Susquehanna LLC (Susquehanna Steam Electric Station, Units 1 and 2), CLI-07-25, 66 NRC 101, 104 (2007)
an appeal that merely recites earlier arguments without explaining how they demonstrate legal error or abuse of discretion on the board's part does not satisfy NRC pleading standards; CLI-10-21, 72 NRC 200 n.14 (2010)

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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 requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi) is grounds for dismissing a contention; LBP-10-16, 72 NRC 416 (2010); LBP-10-21, 72 NRC 651 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-00-13, 52 NRC 23, 29 (2000)
on appeal, legal issues are reviewed *de novo*; CLI-10-17, 72 NRC 11 n.40 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-1, 53 NRC 1, 5 (2001)
the mere potential for legal error in a contention admissibility decision is not a ground for interlocutory review; CLI-10-30, 72 NRC 568 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 235 (2001)
in the absence of evidence to the contrary, NRC does not presume that a licensee will violate agency regulations wherever the opportunity arises; CLI-10-20, 72 NRC 194 n.48 (2010); LBP-10-20, 72 NRC 594 n.27, 608 n.1, 614 (2010)
petitioner cannot base standing or a contention on the possibility that the licensee will violate the terms of its license; CLI-10-20, 72 NRC 193 n.45 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-22, 54 NRC 255, 264 (2001)
guidance documents cannot impose requirements; CLI-10-17, 72 NRC 39 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 380-84 (2001)
the Commission generally declines to hold proceedings in abeyance pending the outcome of other Commission actions or adjudications; CLI-10-17, 72 NRC 10 n.36 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348 n.22 (2002)
although NRC gives substantial deference to Council on Environmental Quality regulations, it is not bound to follow them; LBP-10-16, 72 NRC 437 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-26 (2003)
on appeal, the Commission refrains from exercising its authority to make *de novo* findings of fact in situations where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-10-18, 72 NRC 72 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 25-27 (2003)
on appeal, the Commission is loath to address complaints concerning a board's skepticism of expert witness's testimony, given that the Commission lacks the board's ability to observe the demeanor of the parties' expert witnesses in general and petitioner's witness in particular; CLI-10-17, 72 NRC 46-47 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 26 (2003)
licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 225 n.64 (2010)
the standard of clear error for overturning a board's factual findings is quite high; CLI-10-18, 72 NRC 73 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-04-4, 59 NRC 31, 46 (2004)
computer models and associated documentation are within the scope of discovery under NRC regulations; LBP-12-23, 72 NRC 704 n.14 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 145 (2004)
determination of economic benefits and costs that are tangential to environmental consequences are within a wide area of agency discretion; LBP-10-24, 72 NRC 771 (2010)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 350 (2005)
to justify reopening the record to admit a new contention, the moving papers must be strong enough, in the light of any opposing filings, to avoid summary disposition, and the new information must be

significant and plausible enough to require reasonable minds to inquire further; LBP-10-21, 72 NRC 643-44 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 350 n.18 (2005)

rationale for the requirement that motions to reopen must address at least nineteen different regulatory factors is provided; LBP-10-19, 72 NRC 534 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-19, 62 NRC 403, 411 (2005)

in the NRC adjudicatory process, the licensing board's principal role is to carefully review all of the evidence, including testimony and exhibits, and to resolve any factual disputes; CLI-10-18, 72 NRC 72 (2010)

on appeal, the Commission defers to a board's factual findings, correcting only clearly erroneous findings where the Commission has strong reason to believe that a board has overlooked or misunderstood important evidence; CLI-10-18, 72 NRC 73 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 179-80 (1998), *aff'd on other grounds,* CLI-98-13, 48 NRC 26 (1998)

the subject matter of a contention must impact the grant or denial of the pending license application; LBP-10-17, 72 NRC 514 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 244 (1998)

although the phrase "possession, custody, or control," is used, no relevant interpretation or construction of the phrase, or of the term control, is provided; LBP-12-23, 72 NRC 706 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-00-27, 52 NRC 216, 223 (2000)

by defining significantly different information in the draft environmental impact statement as a permissible basis for filing a new contention, the Commission has in effect concluded that such new information is good cause for filing a new contention; LBP-10-24, 72 NRC 743 (2010)

intervenor that has sufficient information to file a NEPA contention but delays that filing until publication of the environmental impact statement does so at its peril; LBP-10-24, 72 NRC 732 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-00-27, 52 NRC 216, 223-24 (2000)

even if a petitioner is unable to show that the NRC Staff's NEPA document differs significantly from the environmental report, it may still be able to meet the late-filed contention requirements; LBP-10-24, 72 NRC 731 n.18 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-01-39, 54 NRC 497, 509 (2001)

summary disposition is not a tool for trying to convince a licensing board to decide, on written submissions, genuine issues of material fact that warrant resolution at a hearing; LBP-10-20, 72 NRC 579 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-02-20, 56 NRC 169, 182 (2002)

correctness of a prior decision is not a public policy factor upon which the application of the doctrine of collateral estoppel depends; CLI-10-23, 72 NRC 252 n.217 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-03-30, 58 NRC 454, 479 (2003)

an agency's consideration of alternatives is sufficient if it considers an appropriate range of alternatives, even if it does not consider every available alternative; LBP-10-24, 72 NRC 764 (2010)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-05-29, 62 NRC 635, 666 n.62 (2005)

computer models and associated documentation are within the scope of discovery under NRC regulations; LBP-12-23, 72 NRC 704 n.14 (2010)

Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 4 (2008)
a board could refer a contention relating to a certified design to the Staff for consideration in the design certification rulemaking and hold that contention in abeyance if the contention is otherwise admissible; LBP-10-21, 72 NRC 655 n.25 (2010)
in making the findings required for issuance of a combined license, the Commission shall treat as resolved those matters resolved in connection with the issuance or renewal of a design certification rule; LBP-10-21, 72 NRC 653, 654 (2010)
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 a board's rulings on standing in the absence of clear error or an abuse of discretion; CLI-10-20, 72 NRC 188 (2010)
Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 1 and 2), CLI-09-8, 69 NRC 317, 329 (2009)
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; LBP-10-17, 72 NRC 512 (2010)
Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 252 (2010)
petitioners must seek leave to request reconsideration of a decision and set forth compelling circumstances that petitioners could not reasonably have anticipated and that would render the decision invalid; CLI-10-21, 72 NRC 201 n.15 (2010)
Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 272 (2010)
challenges to regulations are not litigable; LBP-10-16, 72 NRC 438 (2010)
Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 278 n.205 (2010)
the Commission disapproves of incorporation by reference in petitions for review, where it has the effect of bypassing the page limits set forth in NRC regulations; CLI-10-17, 72 NRC 45-46 n.247 (2010)
Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 29 & n.4 (2010)
a successful challenge to a contention admissibility ruling must demonstrate that the ruling either constitutes clear error or reflects an abuse of discretion; CLI-10-17, 72 NRC 53 (2010)
when the Commission reviews board rulings on contention admissibility, it employs the clear error and abuse of discretion standards of review; CLI-10-17, 72 NRC 11 (2010)
Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 33 (2010)
although the duty to comply with NEPA falls upon the agency and not upon the applicant or licensee, the requirements of Part 51 must be met by the applicant; LBP-10-16, 72 NRC 418, 440 (2010)
to ensure a more efficient proceeding, the board merges two contentions; LBP-10-16, 72 NRC 406 (2010)
Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 34 (2010)
applicant is not bound by NEPA, but by NRC regulations in Part 51; LBP-10-16, 72 NRC 435 (2010)
Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 36 (2010)
using an atomizing approach, no single basis would be admissible as a contention; LBP-10-16, 72 NRC 413 (2010)
Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-10, 70 NRC 51, 106-07 (2009)
although the terms "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated these terms clearly

limit them to nuclear reactors, and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 307 (2010)

Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-10, 70 NRC 51, 112 (2009)
the board recommends that the issue of waste disposal from in situ leach mining be considered when the mandatory review and hearing are conducted; LBP-10-16, 72 NRC 435 (2010)

Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), LBP-09-22, 70 NRC 640, 647 (2009)
submission of a new contention within 30 days of the event giving rise to that contention is timely; LBP-10-17, 72 NRC 509 n.25 (2010)

Prokosch v. Catalina Lighting, Inc., 193 F.R.D. 633, 636 (D. Minn. 2000)
"control" does not require that the party have legal ownership or actual physical possession of the documents at issue, but rather, documents are considered to be under a party's control when that party has the right, authority, or practical ability to obtain the documents from a nonparty to the action; LBP-12-23, 72 NRC 707 n.20 (2010)

Public Citizen v. NRC, 573 F.3d 916 (9th Cir. 2009)
NRC already addresses a spectrum of terrorist acts under its design basis threat programs, which have been found acceptable in the Ninth Circuit; LBP-10-15, 72 NRC 323 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-366, 5 NRC 39, 61-62 (1977)
a licensing board may disapprove a site for a new reactor only upon one of two findings; LBP-10-24, 72 NRC 746 n.51 (2010)
under NEPA, the NRC must balance the benefits of the project against its environmental costs; LBP-10-24, 72 NRC 746 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-366, 5 NRC 39, 62 (1977)
the cost-benefit analysis involves the scrutiny of many factors, among them, offsetting benefits, available alternatives, and the possible means (and attendant costs) of reducing the environmental harm; LBP-10-24, 72 NRC 746 n.51 (2010)
the purpose of the cost-benefit analysis called for by NEPA is to identify each significant environmental cost and to determine whether, all other factors considered, on balance the incurring of that cost is warranted; LBP-10-24, 72 NRC 746 n.51 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-748, 18 NRC 1184, 1187 (1983)
friction between the court and counsel, including intemperate and impatient remarks by the judge, does not constitute evidence of personal bias; CLI-10-17, 72 NRC 47 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-749, 18 NRC 1195, 1200 (1983)
to prevail on a disqualification motion, petitioner must show either a bias against petitioner or its counsel based on matters outside the record or a pervasive bias against petitioner based upon matters in the record; CLI-10-17, 72 NRC 46 n.252 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-886, 27 NRC 74, 78 (1988)
an untimely motion to reopen must demonstrate that the issue raised is not merely significant but exceptionally grave; LBP-10-21, 72 NRC 643 (2010)
when a reopening motion is untimely, the section 3.326(a)(1) "exceptionally grave circumstances" test supplants the "significant" issue standard under section 2.326(a)(2); LBP-10-21, 72 NRC 646 n.16 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 16 (1988), *aff'd,* CLI-88-10, 28 NRC 573 (1988), *reconsideration denied,* CLI-89-3, 29 NRC 234 (1989)
a petition to waive a Commission regulation can be granted only in unusual and compelling circumstances; LBP-10-22, 72 NRC 688 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-895, 28 NRC 7, 22 (1988)
a prima facie showing within the meaning of 10 C.F.R. 2.758(d) is one that is legally sufficient to establish a fact or case unless disproved; LBP-10-15, 72 NRC 280 n.20, 303 (2010)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-89-3, 29 NRC 234, 240-41 (1989)
it is not the Board's duty to forage through a petition in order to find statements or other support that may be located in various portions of the petition but not referenced in the contention; LBP-10-16, 72 NRC 398 n.153 (2010)
Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-90-3, 31 NRC 219, 229 (1990)
as an exercise of the Commission's inherent supervisory authority over adjudicatory proceedings, the Commission directs the board to provide the Commission with a status report outlining the board's timetable for resolving all pending matters; CLI-10-18, 72 NRC 96 (2010)
Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), LBP-74-36, 7 AEC 877, 879 (1974)
amendments to license applications are not limited to minor details, but may include significant changes; LBP-10-17, 72 NRC 514 (2010)
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-10-21, 72 NRC 651 (2010)
Public Service Electric and Gas Co. (Salem Nuclear Generating Station, Units 1 and 2), ALAB-136, 6 AEC 487 (1973)
pro se petitioners are held to less rigid pleading standards, so that parties with a clear but imperfectly stated interest in the proceeding are not excluded; CLI-10-20, 72 NRC 192 (2010)
Puerto Rico Aqueduct & Sewer Authority v. Environmental Protection Agency, 35 F.3d 600, 607 (1st Cir. 1994)
when an adjudicating agency retroactively applies a new legal standard that significantly alters the rules of the game, the agency is obliged to give litigants proper notice and a meaningful opportunity to adjust; CLI-10-23, 72 NRC 224 (2010)
Puget Sound Power & Light Co. (Skagit/Hanford Nuclear Power Project, Units 1 and 2), LBP-82-26, 15 NRC 742, 744 (1982)
economic impact of a proposed action on ratepayers is outside the scope of a NEPA analysis; LBP-10-14, 72 NRC 126 (2010)
Quivira Mining Co. (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 5-6 (1998)
the Commission customarily follows judicial concepts of standing; LBP-10-16, 72 NRC 380 (2010)
Quivira Mining Co. (Ambrosia Lake Facility, Grants, New Mexico), CLI-98-11, 48 NRC 1, 6 (1998)
standing requires that petitioner allege a particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-10-16, 72 NRC 380 (2010)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989)
it is inappropriate, perhaps even impossible, for intervenor to prove at the contention admissibility stage that correcting an error or omission in the environmental report or environmental impact statement would, in fact, change the NRC's ultimate decision; LBP-10-14, 72 NRC 129 n.182 (2010)
publication of an environmental impact statement gives the public the assurance that the agency has indeed considered environmental concerns in its decisionmaking process and provides a springboard for public comment; LBP-10-24, 72 NRC 763 (2010)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349-50 (1989)
the principal goals of an environmental impact statement are to force agencies to take a hard look at the environmental consequences of a proposed project, and, by making relevant analyses openly available, to permit the public a role in the agency's decisionmaking process; LBP-10-24, 72 NRC 763 n.86 (2010)
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; LBP-10-24, 72 NRC 763 n.87 (2010)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 355-56 (1989)
Council on Environmental Quality regulations receive substantial deference from the federal courts; LBP-10-24, 72 NRC 755 n.74 (2010)

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Rockford League of Women Voters v. NRC, 679 F.2d 1218, 1222-23 (7th Cir. 1982)
administrative regularity in the regulatory process is assumed, and review of the operating license application takes place independently of that associated with plant construction; CLI-10-29, 72 NRC 562 (2010)

Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 147 (1993)
petitioner has an iron-clad obligation to examine the publicly available documentary material with sufficient care to enable it to uncover any information that could serve as the foundation for a specific contention; CLI-10-27, 72 NRC 496 (2010)

Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-12, 37 NRC 355, 363 (1993)
even if petitioner is unable to show that the NRC Staff's NEPA document differs significantly from the environmental report, it may still be able to meet the late-filed contention requirements; LBP-10-24, 72 NRC 731 (2010)

Salmon River Concerned Citizens v. Robertson, 32 F.3d 1346, 1358-60 (9th Cir. 1994)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

San Francisco Baykeeper v. U.S. Army Corps of Engineers, 219 F. Supp. 2d 1001, 1013-16 (N.D. Calif. 2002)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016, 1028 (9th Cir. 2006)
NRC cannot categorically refuse to consider terrorist attacks under NEPA; LBP-10-15, 72 NRC 320-21 n.73 (2010)

San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016, 1030 (9th Cir. 2006)
NRC must address the environmental impacts of a terrorist attack on nuclear facilities located in the Ninth Circuit; LBP-10-15, 72 NRC 317-18 (2010)

San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016, 1031 (9th Cir. 2006)
it is possible to conduct a low-probability, high-consequence analysis without quantifying the precise probability of risk; LBP-10-15, 72 NRC 324 n.78 (2010)

San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016, 1032-33 (9th Cir. 2006), *cert. denied,* 549 U.S. 1166 (2007)
Council on Environmental Quality regulations are entitled to substantial deference by NRC; LBP-10-15, 72 NRC 288 n.33 (2010)

San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016, 1033 (9th Cir. 2006), *cert. denied sub nom. Pacific Gas & Electric. Co. v. San Luis Obispo Mothers for Peace,* 549 U.S. 1166 (2007)
impacts that are reasonably foreseeable under NEPA must be analyzed publicly, even if their probability of occurrence is low; CLI-10-18, 72 NRC 90 (2010)

San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287, 1300-01 (D.C. Cir. 1984)
under NEPA's well-established probabilistic rule of reason, an agency need not address remote and speculative environmental consequences, nor must it discuss in detail events it believes have an inconsequentially small probability of occurring; LBP-10-14, 72 NRC 117 n.91 (2010)

Sao Paolo State of the Federative Republic of Brazil v. American Tobacco Co., Inc., 535 U.S. 232-33 (2002)
the proper inquiry under 28 U.S.C. § 455 is made from the perspective of a reasonable person, knowing all the circumstances; CLI-10-22, 72 NRC 206 (2010)

Scott v. Arex, Inc., 124 F.R.D. 39, 41 (D. Conn. 1989)
a party controls a document if it has right, authority, or ability to obtain the document on demand; LBP-12-23, 72 NRC 707 n.21 (2010)

Seacoast Anti-Pollution League v. Costle, 572 F.2d 872, 880 (1st Cir. 1978)
there is no absolute right to cross-examination; LBP-10-15, 72 NRC 344 (2010)

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Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13-14 (2001)
redressability requires petitioner to show that its alleged injury-in-fact could be cured or alleviated by some action of the tribunal; LBP-10-16, 72 NRC 382 (2010)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 74 (1994)
it is enough that petitioner has demonstrated a realistic threat of sustaining a direct injury as a result of contaminated groundwater flowing from the site to his property; LBP-10-16, 72 NRC 388 n.85 (2010)
petitioners are not required to demonstrate their asserted injury with certainty at the contention admission stage, or to provide extensive technical studies in support of their standing argument; LBP-10-16, 72 NRC 388 (2010)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994)
a board's determination of standing does not depend on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible; LBP-10-16, 72 NRC 382 (2010)
any potential harm associated with petitioner's use of water from a water source connecting to a mining site is fairly traceable to the proposed action; LBP-10-16, 72 NRC 385 (2010)
determination that the injury is fairly traceable to the challenged action does not depend on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible; LBP-10-16, 72 NRC 388 (2010)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 n.22 (1994)
boards apply a proximity-plus test to establish standing in materials cases, where the petitioner must show that the proposed licensing action involves a significant source of radiation that has an obvious potential for offsite consequences; CLI-10-20, 72 NRC 189 (2010)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site Decontamination and Decommissioning Funding), LBP-94-5, 39 NRC 54 (1994)
a board's standing analysis must avoid the familiar trap of confusing the standing determination with the assessment of a petitioner's case on the merits; LBP-10-16, 72 NRC 388 (2010)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 65 n.47 (2009)
petitioner has an iron-clad obligation to examine the publicly available documentary material with sufficient care to enable it to uncover any information that could serve as the foundation for a specific contention; CLI-10-27, 72 NRC (2010)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), LBP-07-14, 66 NRC 169, 210 n.95 (2007)
if a contention meets the 10 C.F.R. 2.309(f)(2) criteria, it is timely and the intervenor proffering the contention need not also make a showing under 10 C.F.R. 2.309(c); LBP-10-14, 72 NRC 108 (2010)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 481-83 (2008)
boards have legal authority to reformulate contentions; LBP-10-16, 72 NRC 403 (2010)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 NRC 460, 482 (2008)
licensing boards may reformulate contentions to eliminate extraneous issues or to consolidate issues for a more efficient proceeding; LBP-10-14, 72 NRC 127 n.171 (2010)

Shieldalloy Metallurgical Corp. (Cambridge, Ohio Facility), CLI-99-12, 49 NRC 347, 354 (1999)
petitioners represented by counsel are held to higher standard of specificity in pleading; CLI-10-20, 72 NRC 189 n.15, 192 n.37 (2010)

Shieldalloy Metallurgical Corp. (Decommissioning of the Newfield, New Jersey Site), CLI-10-8, 71 NRC 142, 147 (2010)
although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 10 n.32 (2010)

Sierra Club v. Environmental Protection Agency, 356 F.3d 296, 298 (D.C. Cir. 2004)
an agency is not authorized to grant conditional approval to plans that do nothing more than promise to do tomorrow what the statute requires today; LBP-10-20, 72 NRC 602 n.36 (2010)

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Sierra Club v. Morton, 405 U.S. 727, 739 (1972)
the injury-in-fact necessary to establish organizational standing must be more than a mere interest in a problem, no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem; LBP-10-16, 72 NRC 383 (2010)
to establish organizational standing, an organization must demonstrate that the action at issue will cause an injury-in-fact to the organization's interests and the injury is within the zone of interests protected by NEPA or the AEA; LBP-10-16, 72 NRC 383 (2010)

Sierra Club v. U.S. Department of Transportation, 310 F. Supp. 2d 1168, 1188 (D. Nev. 2004)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information, and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

Silverman v. Eastrich Multiple Investor Fund, L.P., 51 F.3d 28, 31 (3d Cir. 1995)
a basic tenet of statutory construction, equally applicable to regulatory construction, is that a text should be construed so that effect is given to all of its provisions, so no part will be inoperative or superfluous, void or insignificant; LBP-10-22, 72 NRC 671 n.25 (2010)

Simmons v. U.S. Army Corps of Engineers, 120 F.3d 664, 668 (7th Cir. 1997)
in considering alternatives under NEPA, an agency is required to address the purpose of the proposed project, reasonable alternatives to the project, to what extent the agency should explore each particular reasonable alternative; CLI-10-18, 72 NRC 77-78 n.119 (2010)

Simon v. Eastern Kentucky Welfare Rights Organization, 426 U.S. 26, 41-42 (1976)
to establish causation, petitioner must show that there is a causal connection between the injury and the conduct complained of, i.e., the injury must be fairly traceable to the challenged action of the defendant, and not the result of the independent action of some third party not before the court; LBP-10-16, 72 NRC 382 (2010)

Smith v. United States, 508 U.S. 223, 228 (1993)
in the absence of a statutory definition, courts normally define a term by its ordinary meaning; LBP-10-24, 72 NRC 736 (2010)

Snoqualmie Indian Tribe v. Federal Energy Regulatory Commission, 45 F.3d 1207 (9th Cir. 2008)
tribes that have addressed procedural violations of the National Historic Preservation Act have uniformly been granted standing under the relaxed standard and have proceeded directly to the merits of the NHPA claim; LBP-10-16, 72 NRC 393 n.123 (2010)

South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 3, 15 (2010)
need-for-power contention is dismissed because it calls for a more detailed analysis than NRC requires; LBP-10-24, 72 NRC 749 (2010)

South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 7 (2010)
petitioner's standing showing can be corrected or supplemented to cure deficiencies by means of its reply pleading; LBP-10-21, 72 NRC 640 (2010)

South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 17 (2010)
a need-for-power analysis should not involve burdensome attempts to precisely identify future conditions, but rather should be sufficient to reasonably characterize the costs and benefits associated with proposed licensing actions; LBP-10-24, 72 NRC 776 (2010)

Southern California Edison Co. (San Onofre Nuclear Generating Station, Units 2 and 3), ALAB-673, 15 NRC 688, 695 (1982)
collateral estoppel doctrine has long been recognized as part of NRC adjudicatory practice; CLI-10-23, 72 NRC 249 (2010)

Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), LBP-08-2, 67 NRC 54, 63-64 (2008)
where intervenors have not sought to amend their contention as admitted, to the degree the contention is one of omission, it is subject to dismissal in connection with those aspects for which it is appropriately established that the Staff draft environmental impact statement provides any purported missing analysis or discussion; LBP-10-14, 72 NRC 109 n.31 (2010)

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Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), CLI-09-16, 70 NRC 33, 37 (2009)
section 52.79(a)(3) pertains to how the COL applicant intends, through its design, operational organization, and procedures, to comply with relevant substantive radiation protection requirements in 10 C.F.R. Part 20; LBP-10-20, 72 NRC 601 (2010)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-09-3, 69 NRC 139, 153-54 (2009)
petitioner has an obligation to explain why cited testimony provides a basis for its contention; LBP-10-17, 72 NRC 510 n.26 (2010)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-8, 71 NRC 433, 443-44 (2010)
the language of 10 C.F.R. 52.79(a)(4) is contrasted with the "means" language of 10 C.F.R. 52.79(a)(3); LBP-10-20, 72 NRC 610 n.7 (2010)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-8, 71 NRC 433, 444 (2010)
detailed design, location, and health impacts information on low-level radioactive waste storage is not required in the combined license application; LBP-10-20, 72 NRC 583 (2010)
there is no prohibition on an applicant using a plan for compliance with section 52.79(a)(3) that includes contingent plans should future low-level radioactive waste storage become necessary; LBP-10-20, 72 NRC 585 (2010)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-8, 71 NRC 433, 445 (2010)
there is no requirement in section 52.79(a)(3) for applicant's FSAR to include details regarding building materials and high-integrity containers, exact location, or health impacts on employees for the contingent onsite long-term LLRW storage facility; LBP-10-20, 72 NRC 603 (2010)

Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 18-19 (1998)
in establishing and enforcing schedule deadlines, boards must take care not to compromise the Commission's fundamental commitment to a fair and thorough hearing process; LBP-10-21, 72 NRC 635 (2010)

Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 18-20 (1998)
in the interest of efficient case management and prompt resolution of adjudications, the Commission has generally enforced the 10-day deadline for appeals strictly, excusing it only in unavoidable and extreme circumstances; CLI-10-26, 72 NRC 476 (2010)

Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 19 (1998)
licensing boards have substantial authority to regulate hearing procedures; LBP-10-21, 72 NRC 635 (2010)
the Commission has long endorsed a balanced approach to hearings that both expedites the hearing process and ensures fairness in order to produce a record that leads to high-quality decisions that adequately protect the public health and safety, the common defense and security, and the environment; LBP-10-21, 72 NRC 635-36 (2010)

Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 21 (1998)
although participants generally must comply with the schedule established by the presiding officer, they might sometimes be unable to meet established deadlines; LBP-10-21, 72 NRC 635 (2010)
only in truly unavoidable and extreme circumstances are late filings to be accepted; LBP-10-21, 72 NRC 636 (2010)

Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 22 (1998)
it is a contention's proponent, not the licensing board, that is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for the admission of contentions; LBP-10-24, 72 NRC 775 (2010)

Statement of Policy on Conduct of Adjudicatory Proceedings, CLI-98-12, 48 NRC 18, 23 (1998)
Commission will take early review as to matters involving novel legal or policy questions; CLI-10-24, 72 NRC 465 n.82 (2010)
in its supervisory capacity, the Commission provides guidance on the "need for SUNSI" analysis, for use in those instances when an access order applies; CLI-10-24, 72 NRC 465 (2010)

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Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 453 (1981)
in establishing and enforcing schedule deadlines, boards must take care not to compromise the Commission's fundamental commitment to a fair and thorough hearing process; LBP-10-21, 72 NRC 635 (2010)
the Commission has long endorsed a balanced approach to hearings that both expedites the hearing process and ensures fairness in order to produce a record that leads to high-quality decisions that adequately protect the public health and safety, the common defense and security, and the environment; LBP-10-21, 72 NRC 635-36 (2010)
the Commission regards good sense, judgment, and managerial skills as the proper guideposts for conducting an efficient hearing; LBP-10-21, 72 NRC 636 (2010)
Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 453-54 (1981)
licensing boards have substantial authority to regulate hearing procedures; LBP-10-21, 72 NRC 635 (2010)
requests for an extension of time should generally be in writing and should be received by the board well before the time specified expires; LBP-10-21, 72 NRC 635 (2010)
Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 454 (1981)
a spectrum of sanctions from minor to severe may be employed by a board to assist in the management of a proceeding; LBP-10-21, 72 NRC 636 (2010)
counsel's alleged unfamiliarity with the agency's rules of practice or counsel's asserted busy schedule are not satisfactory explanations for late filings; LBP-10-21, 72 NRC 637 (2010)
examples of sanctions include warning a party that offending conduct will not be tolerated in the future, refusing to consider a filing, denying the right to cross-examine or present evidence, dismissing contentions, imposing sanctions on counsel, or dismissing the party from the proceeding; LBP-10-21, 72 NRC 636 n.3 (2010)
factors considered in selecting an appropriate sanction include relative importance of the unmet obligation, its potential for harm to other parties or the orderly conduct of the proceeding, whether its occurrence is an isolated incident or a part of a pattern of behavior, the importance of the safety or environmental concerns raised by the party, and all of the circumstances; LBP-10-21, 72 NRC 636 n.4 (2010)
the fact that a party may have other obligations does not relieve that party of its hearing obligations; CLI-10-26, 72 NRC 476 (2010)
with an eye toward mitigating prejudice to nonbreaching participants, boards must tailor sanctions to bring about improved future compliance; LBP-10-21, 72 NRC 636 (2010)
Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 455 (1981)
a party at risk of filing out of time arguably never needs to file out of time because the party can first request an extension, doing so well before the time specified expires; LBP-10-21, 72 NRC 637 (2010)
parties are expected to file motions for extensions of time so that they are received by NRC well before the time specified expires; CLI-10-26, 72 NRC 477 n.17 (2010)
Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227 (1980)
NEPA does not require agencies to elevate environmental concerns over other appropriate considerations; LBP-10-24, 72 NRC 729 n.16 (2010)
Sun Oil Co. v. Pierce, 224 F.2d 580, 585 (5th Cir. 1955)
the civil law concept of "assumption of risk" requires not merely general knowledge of a risk but also that the risk assumed be specifically known, understood, and appreciated; CLI-10-23, 72 NRC 223 (2010)
System Energy Resources, Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005)
a dispute is not material unless it involves a significant inaccuracy or omission and resolution of the dispute could affect the outcome of the licensing proceeding; LBP-10-14, 72 NRC 117 n.93 (2010)
although boards should not "flyspeck" environmental documents, petitioners may raise contentions seeking correction of significant inaccuracies and omissions in the environmental report; LBP-10-24, 72 NRC 762 (2010)
licensing boards do not sit to flyspeck environmental documents or to add details or nuances; LBP-10-14, 72 NRC 117 n.93 (2010)

System Energy Resources, Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 15 (2005)
the Commission explains why board decisions on contention admissibility are permissibly and customarily terse; LBP-10-16, 72 NRC 413 n.247 (2010)
Tennessee Valley Authority (Bellefonte Nuclear Plant, Units 1 and 2), CLI-10-26, 72 NRC 474, 475-78 (2010)
the Commission elaborates on the standards for accepting an appeal filed out of time; LBP-10-21, 72 NRC 636 (2010)
Tennessee Valley Authority (Bellefonte Nuclear Plant, Units 1 and 2), CLI-10-26, 72 NRC 474, 476 (2010)
strict enforcement of deadlines furthers the dual interests of efficient case management and prompt resolution of adjudications; LBP-10-21, 72 NRC 636 (2010)
Tennessee Valley Authority (Bellefonte Nuclear Plant, Units 1 and 2), CLI-10-26, 72 NRC 474, 476-77 & n.18 (2010)
a motion to file late should generally be denied, except under extraordinary conditions; LBP-10-21, 72 NRC 635 (2010)
Tennessee Valley Authority (Bellefonte Nuclear Plant, Units 1 and 2), CLI-10-26, 72 NRC 474, 477 (2010)
a party at risk of filing out of time arguably never needs to file out of time because the party can first request an extension, doing so well before the time specified expires; LBP-10-21, 72 NRC 637 (2010)
Tennessee Valley Authority (Bellefonte Nuclear Plant, Units 1 and 2), CLI-10-26, 72 NRC 474, 477 n.17 (2010)
participant filing out of time must offer a satisfactory explanation for its lateness, including, if necessary, an account as to why a request for extension could not have been filed beforehand; LBP-10-21, 72 NRC 637 (2010)
Tennessee Valley Authority (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-08-16, 68 NRC 361, 397 (2008)
in making the findings required for issuance of a combined license, the Commission shall treat as resolved those matters resolved in connection with the issuance or renewal of a design certification rule; LBP-10-21, 72 NRC 653 (2010)
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)
licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 225 n.64 (2010)
the Commission generally defers to board findings of fact, unless they are clearly erroneous; CLI-10-17, 72 NRC 11 n.40 (2010)
the Commission will not overturn a hearing judge's findings simply because the Commission might have reached a different result; CLI-10-23, 72 NRC 241 n.153 (2010)
to satisfy the "clearly erroneous" standard, a litigant must show that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-17, 72 NRC 11-12 nn.41 & 43 (2010); CLI-10-23, 72 NRC 225 (2010)
whether collateral estoppel should be applied is a legal question that the Commission reviews de novo; CLI-10-23, 72 NRC 250 (2010)
Tennessee Valley Authority (Watts Bar Nuclear Plant, Unit 1; Sequoyah Nuclear Plant, Units 1 and 2; Brown's Ferry Nuclear Plant, Units 1, 2, and 3), CLI-04-24, 60 NRC 160, 190 (2004)
legal questions are reviewed de novo and will be reversed if a licensing board's legal rulings are a departure from or contrary to established law; CLI-10-18, 72 NRC 73 (2010)
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, 199 (2004)
on appeal, the Commission is loath to address complaints concerning a board's skepticism of expert witness's testimony, given that the Commission lacks the board's ability to observe the demeanor of the parties' expert witnesses in general and petitioner's witness in particular; CLI-10-17, 72 NRC 46-47 (2010)

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Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 162-63 (1993)
petitioner must make a fresh standing demonstration in each individual proceeding in which intervention is sought; LBP-10-21, 72 NRC 640 (2010)

Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 163 (1993)
it might be sufficient to allow petitioner to rely on a prior standing demonstration if that prior demonstration is specifically identified and shown to correctly reflect the current status of petitioner's standing; LBP-10-21, 72 NRC 642 n.10 (2010)

Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-93-11, 37 NRC 251, 255 (1993)
in addressing the section 2.309(c)(1) factors, failure to provide any specific discussion of most of these items or the weight they should be given in the balance is a potentially fatal omission; LBP-10-21, 72 NRC 649 n.18 (2010)

Texas Utilities Generating Co. (Comanche Peak Steam Electric Station, Units 1 and 2), ALAB-255, 1 NRC 3, 7 (1975)
if appellant had submitted an offer of proof, indicating what rebuttal evidence it would have offered to the board, then the Commission might have had some basis for determining whether that evidence would be substantial enough to justify a remand to the board; CLI-10-23, 72 NRC 246 (2010)

Toledo Edison Co. (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-378, 5 NRC 557, 561 (1977)
collateral estoppel doctrine precludes the relitigation of issues of law or fact that have been finally adjudicated by a tribunal of competent jurisdiction in a proceeding involving the same parties or their privies; CLI-10-23, 72 NRC 249 (2010)

Toledo Edison Co. (Davis-Besse Nuclear Power Station, Units 1, 2, and 3), ALAB-378, 5 NRC 557, 562-63 (1977)
in determining whether to apply collateral estoppel, a board should not look into the jury trial to determine whether the verdict was correct; CLI-10-23, 72 NRC 252 (2010)
licensing boards may give collateral estoppel effect to issues previously decided in a district court proceeding; CLI-10-23, 72 NRC 249 (2010)

Town of Winthrop v. Federal Aviation Administration, 553 F.3d 1, 11 (1st Cir. 2008)
although there will always be more data that could be gathered, agencies must have some discretion to draw the line and move forward with decisionmaking; LBP-10-15, 72 NRC 286 (2010)

Town of Winthrop v. Federal Aviation Administration, 533 F.3d 1, 13 (1st Cir. 2008)
an environmental impact statement is not intended to be a research document; CLI-10-22, 72 NRC 208 (2010)

U.S. Army (Jefferson Proving Ground Site), LBP-00-9, 51 NRC 159, 160-61 (2000)
standing was found for an organization representing three members living in close proximity to decommissioning site, who expressed concern that depleted uranium materials could affect a waterway abutting the property of two members; CLI-10-20, 72 NRC 189 n.13 (2010)

U.S. Army (Jefferson Proving Ground Site), LBP-06-27, 64 NRC 438, 447 (2006)
to be admissible, a contention must comply with every requirement listed in 10 C.F.R. 2.309(f)(1); LBP-10-16, 72 NRC 416 (2010)

U.S. Army Installation Command (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), CLI-10-20, 72 NRC 185, 195 (2010)
when a contested proceeding has been terminated following the resolution of all submitted contentions, an individual, group, or governmental entity that wishes to interpose an additional issue must submit a new intervention petition that addresses the standards in section 2.309(c)(1) that govern nontimely intervention petitions; LBP-10-21, 72 NRC 647 (2010)

U.S. Army Installation Command (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), CLI-10-20, 72 NRC 185, 195 & n.56 (2010)
to interpose a new contention after a proceeding has been terminated requires submission of a fresh intervention petition that fulfills the applicable standards for such filings, including an appropriate standing demonstration; LBP-10-21, 72 NRC 640 (2010)

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U.S. Department of Energy (High-Level Waste Repository), CLI-08-20, 68 NRC 272, 274-75 (2008)
boards do not direct the Staff in the performance of its administrative functions; LBP-10-17, 72 NRC 513 (2010)
the decision to docket, and the subsequent handling of an application, is within the discretion of the Staff; LBP-10-17, 72 NRC 512 (2010)

U.S. Department of Energy (High-Level Waste Repository), CLI-09-14, 69 NRC 580, 590 (2009)
NRC's procedural rules permit contentions that raise issues of law as well as contentions that raise issues of fact; LBP-10-17, 72 NRC 510 (2010)
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; LBP-10-17, 72 NRC 510 (2010)

U.S. Department of Energy (High-Level Waste Repository), LBP-04-20, 60 NRC 300, 337 (2004)
applicant required consultants and contractors working on the application to submit all of the relevant documentary material in their possession; LBP-12-23, 72 NRC 710 n.27 (2010)

U.S. Department of Energy (High-Level Waste Repository), LBP-08-5, 67 NRC 205, 212 n.32, 221 (2008) (Karlin, J., dissenting)
state intervenor required its consultants and contractors to submit all of the relevant documentary material in their possession; LBP-12-23, 72 NRC 710 n.27 (2010)

U.S. Department of Energy (High-Level Waste Repository), LBP-09-6, 69 NRC 367, 416 (2009)
applicant cannot, at the contention admissibility stage, demand that petitioners rerun a sensitivity analysis in order to demonstrate the impact of alleged defects; LBP-10-14, 72 NRC 128 n.182 (2010)

U.S. Department of Energy (High-Level Waste Repository), LBP-09-29, 70 NRC 1028, 1036 (2009)
in order to raise a timely contention, a party must piece together disparate shreds of information that, standing alone, have little apparent significance; CLI-10-27, 72 NRC 487 n.27 (2010)

U.S. Department of Transportation v. Public Citizen, 541 U.S. 752, 756-57 (2004)
NEPA requires federal agencies to consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives; LBP-10-24, 72 NRC 729 n.16 (2010)

U.S. Department of Transportation v. Public Citizen, 541 U.S. 752, 757 (2004)
Council on Environmental Quality regulations receive substantial deference from federal courts; LBP-10-24, 72 NRC 755 n.74 (2010)

U.S. Enrichment Corp. (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 272 (2001)
the Commission treats *pro se* litigants more leniently than litigants with counsel; CLI-10-17, 72 NRC 45 n.246 (2010)

U.S. Enrichment Corp. (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 273 (2001)
to determine whether an interest is in the zone of interests of a statute, it is necessary first to discern the interests arguably to be protected by the statutory provision at issue and then to inquire whether petitioner's interests affected by the agency action are among them; LBP-10-16, 72 NRC 381 (2010)

U.S. Enrichment Corp. (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 280 n.37 (2001)
the standard review plan provides guidance but does not impose requirements on license renewal applicants; CLI-10-17, 72 NRC 20 (2010)

U.S. Enrichment Corp. (Paducah, Kentucky, and Piketon, Ohio), CLI-96-12, 44 NRC 231, 242 (1996)
generalized claims that are vague and insufficiently supported and do not tend to establish any connection with the proposed license or potential harm to petitioner are insufficient to support a contention; CLI-10-20, 72 NRC 194 n.49 (2010)

Union of Concerned Scientists v. NRC, 735 F.2d 1437, 1447 (D.C. Cir. 1984), *cert. denied,* 469 U.S. 1132 (1985)
issues material to the agency's licensing decision must be subject to adjudicatory challenge; LBP-10-21, 72 NRC 657 n.28 (2010)

United States v. Ahmed, 472 F.3d 427, 433 (6th Cir. 2006), *cert. denied,* 551 U.S. 1132 (2007)
a false statement charge, like a perjury charge, effectively demands an inquiry into defendant's state of mind and intent to deceive at the time the testimony was given, and the entire focus of a perjury inquiry centers upon what the testifier knew and when he knew it, in order to establish beyond a

reasonable doubt that he knew his testimony to be false when he gave it; CLI-10-23, 72 NRC 223 (2010)

United States v. Bonds, 18 F.3d 1327, 1330-31 (6th Cir. 1994)
mere experience or background in a relevant technical field does not imply knowledge of the specific disputed facts in a case; CLI-10-22, 72 NRC 206 (2010)

United States v. Burgos, 94 F.3d 849, 869 (4th Cir. 1996)
some circumstances surrounding a person's false statement may be so obvious that knowledge of its character may be fairly attributed to him; CLI-10-23, 72 NRC 223 n.52 (2010)

United States v. Curran, 20 F.3d 560, 567 (3d Cir. 1994)
to convict a person accused of making a false statement, the government must prove not only that the statement was false, but that the accused knew it to be false; CLI-10-23, 72 NRC 223 n.52 (2010)

United States v. Figueroa, 165 F.3d 111, 115-16 (2d Cir. 1998)
knowledge may suffice for criminal culpability if extensive enough to attribute to the knower a guilty mind, or knowledge that he or she is performing a wrongful act; CLI-10-23, 72 NRC 223 (2010)

United States v. Figueroa, 720 F.2d 1239, 1246 (11th Cir. 1983)
some circumstances surrounding a person's false statement may be so obvious that knowledge of its character may be fairly attributed to him; CLI-10-23, 72 NRC 223 n.52 (2010)

United States v. Gonsalves, 435 F.3d 64, 72 (1st Cir. 2006)
willfulness means nothing more in the context of a false statement than that the defendant knew that his statement was false when he made it or consciously disregarded or averted his eyes from its likely falsity; CLI-10-23, 72 NRC 223 n.52 (2010)

United States v. Jewell, 532 F.2d 697, 699 (9th Cir. 1976)
a defendant can be convicted if he was aware that a high probability existed of the fact or circumstances that would make his conduct criminal, but ignored that probability so he could disclaim knowledge later; CLI-10-23, 72 NRC 251 n.207 (2010)

United States v. Pend Oreille County Public Utility District No. 1, 585 F. Supp. 606 (D. Wash. 1984)
preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 391 (2010)

United States v. Picciandra, 788 F.2d 39, 46 (1st Cir.), *cert. denied,* 479 U.S. 847 (1986)
any reasonable person would realize that in today's society the bizarre bearing of shopping bags filled with large sums of cash signals some form of illegal activity; CLI-10-23, 72 NRC 223 n.52 (2010)

United States v. Skeddle, 176 F.R.D. 258, 261 (N.D. Ohio 1997)
production of documents is required if the party has practical ability to obtain the documents from another, irrespective of his legal entitlement to the documents; LBP-12-23, 72 NRC 708 n.22 (2010)

United States v. Wasserson, 418 F.3d 225, 237-39 (3d Cir. 2005)
a defendant can be convicted if he was aware that a high probability existed of the fact or circumstances that would make his conduct criminal, but ignored that probability so he could disclaim knowledge later; CLI-10-23, 72 NRC 251 n.207 (2010)

United States ex rel. Chunie v. Ringrose, 788 F.2d 638 (9th Cir. 1986)
preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 391 (2010)

United States Postal Service Board of Governors v. Aikens, 460 U.S. 711, 714 n.3 (1983)
plaintiff may prove his case by direct or circumstantial evidence; CLI-10-23, 72 NRC 242 n.157 (2010)

USEC Inc. (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 311 (2005)
in a materials licensing case, petitioner must show a plausible mechanism through which those materials could harm him; CLI-10-20, 72 NRC 189 (2010)
in a materials licensing case, petitioner must show more than that he lives or works within a certain distance of the site where materials will be located; CLI-10-20, 72 NRC 188-89 (2010)
in cases not involving nuclear power reactors, whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; CLI-10-20, 72 NRC 188 (2010)

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USEC Inc. (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 311-12 (2005)
in source materials cases, petitioner has the burden of showing a specific and plausible means by which the proposed license activities may affect him or her; LBP-10-16, 72 NRC 382 (2010)
proximity-based presumption of standing does not apply in source materials cases; LBP-10-16, 72 NRC 381 (2010)

USEC Inc. (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006)
NRC contention admissibility requirements are deliberately strict, and any contention that does not satisfy them will be rejected; CLI-10-21, 72 NRC 201 (2010)

USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006)
it is a contention's proponent, not the licensing board, that is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for the admission of contentions; LBP-10-24, 72 NRC 775 (2010)

USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 458 (2006)
absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting the contentions which a board never had the opportunity to consider; CLI-10-21, 72 NRC 201 n.16 (2010)

USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 460 (2006)
petitioners or intervenors may request and, where appropriate, obtain, under protective order or other measures, information withheld from the general public for proprietary or security reasons; CLI-10-24, 72 NRC 463 n.74 (2010)

Ute Indians v. United States, 28 Fed. Cl. 768 (1993)
preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 391-92 (2010)

Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 551 (1978)
consideration of alternatives is bounded by a notion of feasibility; CLI-10-18, 72 NRC 78 (2010)

Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 553 (1978)
it is the NRC Staff, not the intervenors, that has the burden of complying with NEPA; LBP-10-24, 72 NRC 764 (2010)

Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 555 (1978)
rationale for the requirement that motions to reopen must address at least nineteen different regulatory factors is provided; LBP-10-19, 72 NRC 534 (2010)

Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 558 (1978)
the NEPA requirement to prepare an environmental impact statement is a procedural mechanism designed to ensure that agencies give proper consideration to the environmental consequences of their actions; LBP-10-24, 72 NRC 729 n.16 (2010)

Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station, ALAB-124, 6 AEC 358, 365 (1973)
a timely motion to reopen may be denied if it raises issues that are not of major significance to plant safety while a nontimely motion may be granted if it raises an issue of sufficient gravity; LBP-10-21, 72 NRC 643 (2010)

Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 (1973)
a timely motion to reopen may be denied if it raises issues that are not of major significance to plant safety while a nontimely motion may be granted if it raises an issue of sufficient gravity; LBP-10-21, 72 NRC 643 (2010)

Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989)
impacts that are remote and speculative or inconsequentially small need not be examined; LBP-10-14, 72 NRC 110 (2010)

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Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-00-17, 52 NRC 79, 83 (2000)
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Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000)
an organization asserting representational standing must demonstrate that the interest of at least one of its members will be harmed and the member would have standing in his or her own right, identify that member by name and address, and demonstrate that the organization is authorized to request a hearing on behalf of that member; LBP-10-16, 72 NRC 383 (2010)
an organization must identify its authorizing member and show that the member has authorized the organization to represent him or her and request a hearing on his or her behalf; LBP-10-16, 72 NRC 390 (2010)
an organization seeking to establish representational standing must show that at least one of its members may be affected by the proceeding; LBP-10-16, 72 NRC 389-90 (2010)
when seeking to intervene in a representational capacity an organization must identify by name and address at least one member who is affected by the licensing action and who qualifies for standing in his or her own right, and show that the member has authorized the organization to intervene on his or her behalf; LBP-10-15, 72 NRC 276 (2010)

Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163-64 (2000)
an entity seeking to intervene on behalf of its members must show that it has an individual member who can fulfill all the necessary standing elements and who has formally authorized the organization to represent his or her interests; LBP-10-21, 72 NRC 639 (2010)

Village of Bensonville v. Federal Aviation Administration, 457 F.3d 52, 71 (D.C. Cir. 2006)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information and significant uncertainties; CLI-10-22, 72 NRC 209 (2010)

Virginia Electric and Power Co. (North Anna Power Station, Unit 3), LBP-08-15, 68 NRC 294, 317 (2008)
if applicant cures the omission on which a contention is based, the contention will become moot; LBP-10-16, 72 NRC 395 (2010)
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Virginia Electric and Power Co. (North Anna Power Station, Unit 3), LBP-09-27, 70 NRC 992, 996 (2009)
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Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), CLI-74-16, 7 AEC 313, 314 (1974)
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Warm Springs Dam Task Force v. Gribble, 621 F.2d 1017, 1026-27 (9th Cir. 1980)
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Washington Public Power Supply System (WPPSS Nuclear Project No. 3), ALAB-747, 18 NRC 1167, 1173 (1983)
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Westinghouse Electric Corp. (Nuclear Fuel Export License for Czech Republic — Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 331 (1994)
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Westlands Water District v. U.S. Department of Interior, 376 F.3d 853, 868 (9th Cir. 2004)
NEPA's rule of reason does not require an agency to undertake a separate analysis of alternatives that are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences; CLI-10-18, 72 NRC 82 (2010)

Whitmore v. Arkansas, 495 U.S. 149, 158-59 (1990)
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Williams v. United States, 379 F.2d 719, 723 (5th Cir. 1967)
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Wisconsin Electric Power Co. (Koshkonong Nuclear Plant, Units 1 and 2), CLI-74-45, 8 AEC 928, 929 (1974)
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Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-94-3, 39 NRC 95, 102 n.10 (1994)
an organization seeking to intervene in its own right must allege that the challenged action will cause a cognizable injury to its interests or to the interests of its members; LBP-10-15, 72 NRC 276 (2010)

Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996)
once parties demonstrate standing, they will then be free to assert any contention that, if proved, will afford them the relief they seek; LBP-10-15, 72 NRC 276 (2010)
to establish standing, petitioner must show that 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, the injury is fairly traceable to the challenged action, and the injury is likely to be redressed by a favorable decision; LBP-10-15, 72 NRC 275 (2010); LBP-10-21, 72 NRC 639 (2010)

Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996)
although the contention admissibility rule imposes on a petitioner the burden of going forward with a sufficient factual basis, it does not shift the ultimate burden of proof from applicant to petitioner; LBP-10-24, 72 NRC 756-57 (2010)
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Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 251 (1996)
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Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 194-95 (1998)
to establish organizational standing, an organization must demonstrate that the action at issue will cause an injury-in-fact to the organization's interests and the injury is within the zone of interests protected by NEPA or the AEA; LBP-10-16, 72 NRC 383 (2010)

Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195 (1998)
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Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 195-96 (1998)
petitioner's claimed injury must be arguably within the zone of interests protected by the governing statute in the proceeding; LBP-10-16, 72 NRC 381 (2010)

Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 202 (1998)
in the interest of efficient case management and prompt resolution of adjudications, the Commission has generally enforced the 10-day deadline for appeals strictly, excusing it only in unavoidable and extreme circumstances; CLI-10-26, 72 NRC 476 (2010)

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Yankee Atomic Electric Co. (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61, 90 n.30, *rev'd in part on other grounds,* CLI-96-7, 43 NRC 235 (1996)
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10 C.F.R. 2.4
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10 C.F.R. 2.101(a-1)(2)
this provision pertains to early consideration of site suitability issues, allows a COL applicant requesting such consideration to submit its application in parts, and provides a schedule for submitting those parts of the application to the agency; LBP-10-17, 72 NRC 516 (2010)
10 C.F.R. 2.203
the board exercised its authority to request clarification from the parties regarding the extent that a proposed settlement agreement called upon licensee to take specific measures to avoid repetition of the storage drum mislabeling and insufficient operator training that led to a hydrofluoric acid spill event; LBP-10-18, 72 NRC 522 (2010)
10 C.F.R. 2.206
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petitioner's request for action concerning deficiencies in licensee's employee concerns program is denied; DD-10-1, 72 NRC 150-62 (2010)
petitioner's request that unescorted access authorization be restored so that he can perform his accepted job tasks with all record of denial removed from any and all records is denied; DD-10-2, 72 NRC 163-70 (2010)
petitioner's requests for enforcement action for alleged regulatory, criminal, and ethical misconduct and coverup by NRC Staff is denied; DD-10-3, 72 NRC 172-84 (2010); DD-10-3, 72 NRC 171 (2010)
process for considering petitions is discussed; DD-10-3, 72 NRC 174-75 (2010); DD-10-3, 72 NRC 171 (2010)
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to the extent petitioner believes that NRC Staff has overlooked facts indicating an inadequate safety culture as a matter separate and apart from license renewal, then its remedy is to direct Staff's attention to the supporting facts via a petition for enforcement action; CLI-10-27, 72 NRC 492 (2010)
10 C.F.R. 2.309(a)
a petition for review and request for hearing must include a showing that petitioner has standing and that the board should consider the nature of the petitioner's right under the AEA or NEPA to be made a party to the proceeding, the nature and extent of petitioner's property, financial, or other interest in the proceeding, and the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest; LBP-10-16, 72 NRC 380 (2010)
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10 C.F.R. 2.309(c)
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10 C.F.R. 2.309(c)(1)
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10 C.F.R. 2.309(c)(1)(i)
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10 C.F.R. 2.309(d)
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10 C.F.R. 2.309(d)(1)
to establish organizational standing, an organization must demonstrate that the action at issue will cause an injury in fact to the organization's interests and the injury is within the zone of interests protected by NEPA or the AEA; LBP-10-16, 72 NRC 383 (2010)
10 C.F.R. 2.309(d)(1)(ii)-(iv)
a petition for review and request for hearing must include a showing that petitioner has standing and that the board should consider the nature of the petitioner's right under the AEA or NEPA to be made a party to the proceeding, the nature and extent of petitioner's property, financial, or other interest in the proceeding, and the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest; LBP-10-16, 72 NRC 380 (2010)
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10 C.F.R. 2.309(d)(2)
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10 C.F.R. 2.309(f)
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10 C.F.R. 2.309(f)(1)
a single sentence labeled a contention, with no reference to the six elements of this section does not make an admissible contention; LBP-10-16, 72 NRC 396 (2010)
an admissible contention must meet all the requirements of this section; LBP-10-16, 72 NRC 394 (2010)
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it is petitioner's burden of going forward at the contention admission stage to submit a complete, self-contained contention addressing each of the elements required by this section; LBP-10-16, 72 NRC 415-16 (2010)
motions to reopen must address the six criteria that all contentions must meet; LBP-10-19, 72 NRC 535 (2010)
new or amended contention, like any other, must comply with the admissibility requirements of this section; LBP-10-17, 72 NRC 515 (2010)
NRC contention admissibility requirements are deliberately strict, and any contention that does not satisfy them will be rejected; CLI-10-21, 72 NRC 201 (2010)
petitioner failed to identify any statute or NRC regulation to support its theory that applicant may not revise its application to include a different reactor design; LBP-10-17, 72 NRC 509-10 (2010)
petitioner raises a genuine dispute with the application with respect to the adequacy of information needed to characterize the site and offsite hydrogeology to ensure confinement of the extraction fluids; LBP-10-16, 72 NRC 426 (2010)
petitioner, especially one represented by counsel, bears the burden of going forward and specifically addressing each of the six elements in this section; LBP-10-16, 72 NRC 396 (2010)
the hearing process is only intended for issues that are appropriate for, and susceptible to, resolution in an NRC hearing; LBP-10-15, 72 NRC 278 (2010)
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where petitioner was admitted to the case as a party at the time it filed an amended contention, consideration of the contention's admissibility is governed by the provisions of this section as well as the general contention admissibility requirements of section 2.309(f)(2); CLI-10-18, 72 NRC 86 n.171 (2010)
10 C.F.R. 2.309(f)(1)(i)
contention raised the legal issue of whether the Staff's failure to consider alternative locations complied with NEPA; CLI-10-18, 72 NRC 82 n.151 (2010)
10 C.F.R. 2.309(f)(1)(i)-(ii)
contentions of omission must describe the information that should have been included in the environmental report and provide the legal basis that requires the omitted information to be included; LBP-10-16, 72 NRC 395 (2010)
10 C.F.R. 2.309(f)(1)(i)-(vi)
general contention admissibility requirements are described; CLI-10-27, 72 NRC 489-90 (2010); LBP-10-21, 72 NRC 651 (2010)
six basic requirements for an admissible contention can be summarized as specificity, brief explanation, within scope, materiality, concise statement of alleged facts or expert opinion, and genuine dispute; LBP-10-15, 72 NRC 277 (2010)
10 C.F.R. 2.309(f)(1)(ii)
petitioner described the legal basis for its contention under Ninth Circuit legal precedents; CLI-10-18, 72 NRC 82 n.151 (2010)
10 C.F.R. 2.309(f)(1)(iii)
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10 C.F.R. 2.309(f)(1)(iv)
contention satisfied scope and materiality requirements by raising a legal issue related to completeness of the environmental assessment and compliance with NEPA; CLI-10-18, 72 NRC 82 n.151 (2010)

cost-risk calculations that intervenors propose in in their contention as they relate to the existing reactors are not material to the findings that the NRC must make to license the proposed reactors; LBP-10-14, 72 NRC 126 (2010)
10 C.F.R. 2.309(f)(1)(v)
in proffering contentions that challenge an application, petitioner or intervenor must provide support, including references to sources and documents on which it intends to rely and a guidance document could be one of those sources; CLI-10-24, 72 NRC 467 (2010)
petitioner must provide a concise statement of the alleged facts that support its position and upon which the petitioner intends to rely at the hearing; LBP-10-16, 72 NRC 395 (2010)
petitioner presented a legal contention of omission and a genuine dispute over compliance with NEPA; CLI-10-18, 72 NRC 82 n.154 (2010)
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 legally required missing information; LBP-10-16, 72 NRC 395 (2010)
the requirement that contentions be supported by alleged facts or expert opinion 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-10-14, 72 NRC 129 n.182 (2010)
the showing required for "need" for SUNSI could include, but does not require (nor is it limited to), an explanation that the information will be used as support for a contention; CLI-10-24, 72 NRC 465 n.85 (2010)
10 C.F.R. 2.309(f)(1)(vi)
a contention asserting that the application fails to contain information on a relevant matter as required by law must be supported by petitioner through identification of each failure and the supporting reasons for the petitioner's belief; LBP-10-15, 72 NRC 321 (2010)
a contention must challenge the license application; CLI-10-24, 72 NRC 467 (2010)
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if petitioner makes a *prima facie* allegation that the application omits information required by law, it necessarily presents a genuine dispute with the applicant on a material issue in compliance and raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance; LBP-10-16, 72 NRC 395 (2010)
petitioner presented a legal contention of omission and a genuine dispute over compliance with NEPA; CLI-10-18, 72 NRC 82 n.151 (2010)
10 C.F.R. 2.309(f)(1)(vii)
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10 C.F.R. 2.309(f)(2)
a contention must challenge the license application; CLI-10-24, 72 NRC 467 (2010)
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contentions may be amended or new contentions filed, with permission from the presiding officer, if petitioner shows that information on which the contention is based was not previously available and is materially different than information previously available and the contention has been submitted in a timely fashion based on the availability of the subsequent information; CLI-10-18, 72 NRC 87 (2010); LBP-10-14, 72 NRC 107 (2010); LBP-10-17, 72 NRC 508 n.21 (2010)
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initial docketing with leave of the presiding officer upon a showing on three factors; LBP-10-24, 72 NRC 730 (2010)
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intervenors must move for leave to file a timely new or amended contention under this section; LBP-10-14, 72 NRC 107 (2010)
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once the deadline for filing an initial intervention petition has passed, a party wishing to submit new or amended contentions on matters not associated with issuance of the Staff's draft or final environmental impact statement must satisfy the requirements of this section; LBP-10-21, 72 NRC 650 (2010)
requirements for determining the timeliness of a new NEPA contention are set forth; LBP-10-24, 72 NRC 729 (2010)
the time for filing a new or an amended contention is triggered by different events; LBP-10-24, 72 NRC 738 (2010)
this amended rule is not intended to alter the standards in section 2.714(a) of its rules of practice as interpreted by NRC case law respecting late-filed contentions; LBP-10-17, 72 NRC 508 n.21 (2010)
use of the disjunctive phrase "data *or* conclusions" means that it is sufficient that either data or conclusions in the draft environmental impact statement differ significantly from those in the environmental report; LBP-10-24, 72 NRC 730 (2010)
where petitioner was admitted to the case as a party at the time it filed an amended contention, consideration of the contention's admissibility is governed by the provisions of this section as well as the general contention admissibility requirements of section 2.309(f)(1); CLI-10-18, 72 NRC 86 n.171 (2010)
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10 C.F.R. 2.309(f)(2)(i)
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10 C.F.R. 2.309(f)(2)(i)-(iii)
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the time for filing a new or an amended contention is triggered by different events; LBP-10-24, 72 NRC 738 (2010)
10 C.F.R. 2.309(f)(2)(ii)
new contentions based on assumptions that cannot be considered information that was not previously available or materially different than information previously available do not meet admissibility requirements; CLI-10-17, 72 NRC 29 (2010)
10 C.F.R. 2.309(f)(2)(iii)
a contention based on new information will be considered timely if it is filed within 30 days of the availability of the new information; LBP-10-14, 72 NRC 107-08 (2010)
a contention filed within 30 days of the issuance of a document that legitimately undergirds the contention would be timely and presumptively meet the good cause requirement; CLI-10-18, 72 NRC 87 (2010)
intervenor must comply with procedural requirements for the filing of new or amended contentions, including the requirement that the contentions be submitted in a timely fashion based on the availability of the subsequent information; LBP-10-17, 72 NRC 515 (2010)

10 C.F.R. 2.309(g)
if petitioner relies upon 10 C.F.R. 2.310(d) in requesting a Subpart G proceeding, then petitioner must demonstrate, by reference to the contention, that its resolution necessitates resolution of material issues of fact which may best be determined through the use of the identified procedures; LBP-10-15, 72 NRC 344 (2010)
the board determines which hearing procedure to use on a contention-by-contention basis; LBP-10-15, 72 NRC 344 (2010)
10 C.F.R. 2.310
upon admission of a contention, the board must identify the specific hearing procedures to be used; LBP-10-15, 72 NRC 344 n.98 (2010)
10 C.F.R. 2.310(a)
if no particular procedure is compelled, the board must exercise its discretion and select the hearing procedure most appropriate for the newly admitted contentions; LBP-10-15, 72 NRC 344 (2010); LBP-10-16, 72 NRC 442 (2010)
10 C.F.R. 2.310(b)-(h)
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10 C.F.R. 2.310(d)
Subpart G procedures will be used where resolution of a contention necessitates resolution of material issues of 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 the motive or intent of the party or eyewitness material to the resolution of the contested matter; LBP-10-15, 72 NRC 344 (2010)
the board determines which hearing procedure to use on a contention-by-contention basis; LBP-10-15, 72 NRC 344 (2010)
10 C.F.R. 2.310(h)(1)
if a hearing on a contention is expected to take no more than 2 days to complete, the board can impose the Subpart N procedures for expedited proceedings with oral hearings specified by 10 C.F.R. 2.1400-1407; LBP-10-15, 72 NRC 343 n.95 (2010); LBP-10-16, 72 NRC 442 (2010)
10 C.F.R. 2.311(b)
petitioners have 10 days to appeal an order denying a petition to intervene and/or request for hearing; CLI-10-26, 72 NRC 475 n.5 (2010)
10 C.F.R. 2.311(c)
an order denying a petition to intervene and/or request for hearing may be appealed to the Commission on the question of whether the petition and/or request should have been granted; CLI-10-20, 72 NRC 188 (2010)
petitioners have 10 days to appeal an order denying a petition to intervene and/or request for hearing; CLI-10-26, 72 NRC 475 n.5 (2010)
10 C.F.R. 2.311(d)(2)
an appeal as of right by the NRC Staff is permitted on the question of whether a request for access to sensitive unclassified non-safeguards information should have been denied in whole or in part; CLI-10-24, 72 NRC 461 (2010)
10 C.F.R. 2.313(b)
licensing board judges remain under a continuing obligation to withdraw if a ground for disqualification arises; CLI-10-22, 72 NRC 207 (2010)
10 C.F.R. 2.313(b)(2)
if a licensing board member declines to grant a party's recusal motion, the motion is referred to the Commission to determine the sufficiency of the grounds alleged; CLI-10-22, 72 NRC 203 (2010)
10 C.F.R. 2.314(a)
parties and their representatives are expected to conduct themselves as they should before a court of law; LBP-10-21, 72 NRC 638 n.6 (2010)
10 C.F.R. 2.319
cross-examination occurs virtually automatically in Subpart G hearings, subject to normal judicial management and the requirement to file a cross-examination plan; LBP-10-15, 72 NRC 344 (2010)
licensing boards have authority to regulate the course of the proceeding, and the Commission generally defers to boards on case management decisions; CLI-10-28, 72 NRC 554 (2010)

licensing boards have authority to set a proceeding's schedule and to ensure compliance with that schedule; LBP-10-21, 72 NRC 635 (2010)
10 C.F.R. 2.319(d)
although the Federal Rules of Evidence are not mandated for NRC adjudicatory proceedings, the Commission has endorsed their use as guidance for the boards with the express proviso that boards must apply the Part 2 rules with greater flexibility than the FRE; LBP-12-23, 72 NRC 705-06 (2010)
licensing boards have the authority to regulate hearing procedures, and decisions on evidentiary questions fall within that authority; CLI-10-18, 72 NRC 73 (2010)
10 C.F.R. 2.319(i)
to enable presiding officers to fulfill their duty, they have been given broad authority to examine witnesses at evidentiary hearings; CLI-10-17, 72 NRC 47 (2010)
10 C.F.R. 2.319(j)
boards are authorized to hold prehearing conferences to simplify or clarify the issues for hearing, after which they may admit a revised contention, as long as the revised contention does not add material not raised by the intervenor to make it admissible; LBP-10-14, 72 NRC 127 n.171 (2010)
10 C.F.R. 2.319(k)
licensing boards have the authority to control the schedule for a proceeding to ensure that intervenors have adequate time to prepare new or amended contentions in response to new information; LBP-10-17, 72 NRC 515-16 (2010)
10 C.F.R. 2.323
motions filed under this section are not a legitimate means to bring challenges to board decisions to the Commission; CLI-10-28, 72 NRC 554 n.2 (2010)
10 C.F.R. 2.323(a)
motions are to be filed within 10 days of the event or circumstance from which they arise; LBP-12-23, 72 NRC 714 n.34 (2010)
10 C.F.R. 2.323(f)
decisions that involve significant and novel issues, the resolution of which would materially advance the orderly disposition of proceedings, should be referred to the Commission; LBP-10-20, 72 NRC 608-09 (2010)
10 C.F.R. 2.323(f)(1)
licensing boards are to refer novel issues of law to the Commission; LBP-10-15, 72 NRC 273 (2010)
10 C.F.R. 2.323(h)
a party seeking to challenge NRC Staff's claim of privilege or protected status may file a motion to compel production of the document; CLI-10-24, 72 NRC 463 (2010)
10 C.F.R. 2.325
summary disposition movant bears the burden of demonstrating that there is no genuine issue as to any material fact; LBP-10-20, 72 NRC 579 (2010)
10 C.F.R. 2.326
a proceeding will remain open during the pendency of a remand, during which time, petitioners are free to submit a motion to reopen the record should they seek to address any genuinely new issues related to the license renewal application that previously could not have been raised; CLI-10-17, 72 NRC 10 n.17 (2010)
motions to reopen a closed case for the consideration of a new contention must address the requirements of this section as well as two other regulations; LBP-10-19, 72 NRC 534, 535 (2010)
petitioners are free to submit a motion to reopen the record should they seek to address any genuinely new issues related to a license renewal application that previously could not have been raised; LBP-10-19, 72 NRC 533 (2010)
10 C.F.R. 2.326(a)
timeliness of a motion to reopen depends on what or when the trigger occurred that provided the footing for the new contention and whether the motion was timely filed after that trigger event; LBP-10-21, 72 NRC 644 (2010)
10 C.F.R. 2.326(a)(1)
although a motion to reopen must be timely, an exceptionally grave issue may be considered even if the motion is not timely; LBP-10-19, 72 NRC 547 n.20 (2010)

where a motion to reopen to introduce a new contention foundered on several of the initial criteria, the board found it unnecessary to analyze all of the other factors; LBP-10-19, 72 NRC 531-32 (2010)

10 C.F.R. 2.326(a)(1)-(3)

motions to reopen a closed record must be timely, address a significant safety or environmental issue, and demonstrate that a materially different result would have been likely; LBP-10-19, 72 NRC 535, 544, 545, 552 (2010)

once the record of a proceeding is closed, new information may not be considered in the proceeding unless the reopening standards of this section are met; LBP-10-21, 72 NRC 642-43 (2010)

10 C.F.R. 2.326(a)(2)

given that a motion to reopen fails to satisfy section 2.326(a)(1) and (3), it is unnecessary to decide this significance prong of the regulation; LBP-10-19, 72 NRC 549 (2010)

10 C.F.R. 2.326(a)(3)

movant must show that it is more probable than not that it would have prevailed on the merits of the proposed new contention; LBP-10-19, 72 NRC 549 (2010)

when a reopening motion is untimely, the section 3.326(a)(1) "exceptionally grave circumstances" test supplants the "significant issue" standard under section 2.326(a)(2); LBP-10-21, 72 NRC 646 n.16 (2010)

where a motion to reopen a proceeding to introduce a new contention foundered on several of the initial criteria, the board found it unnecessary to analyze all of the other factors; LBP-10-19, 72 NRC 531-32 (2010)

10 C.F.R. 2.326(b)

a motion to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the criteria of paragraph (a) of this section have been satisfied, including addressing each of the reopening criteria separately with a specific explanation of why it has been met; LBP-10-21, 72 NRC 643, 646-47 (2010)

affidavits supporting motions to reopen must separately address each of the criteria set forth in section 2.326(a)(1)-(3); LBP-10-19, 72 NRC 535 (2010)

motions to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the criteria of section 2.326(a) have been satisfied; LBP-10-19, 72 NRC 535, 544 (2010)

10 C.F.R. 2.326(d)

if a motion to reopen relates to a contention not previously in controversy among the parties, movant must meet the late-filing requirements of section 2.309(c)(1)(i)-(viii); LBP-10-19, 72 NRC 535 (2010); LBP-10-21, 72 NRC 643, 647 (2010)

10 C.F.R. 2.329(c)(1)

boards are authorized to hold prehearing conferences to simplify or clarify the issues for hearing, after which they may admit a revised contention, as long as the revised contention does not add material not raised by the intervenor to make it admissible; LBP-10-14, 72 NRC 127 n.171 (2010)

10 C.F.R. 2.331

presiding officers always have been entitled to question the parties' counsel at oral argument hearings; CLI-10-17, 72 NRC 47 (2010)

10 C.F.R. 2.332

licensing boards have authority to set a proceeding's schedule and to ensure compliance with that schedule; LBP-10-21, 72 NRC 635 (2010)

10 C.F.R. 2.334

licensing boards have authority to implement a hearing schedule for the proceeding; LBP-10-21, 72 NRC 635 (2010)

10 C.F.R. 2.335

challenges to regulations are not litigable; LBP-10-16, 72 NRC 437-48 (2010)

10 C.F.R. 2.335(a)

absent a waiver, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications; LBP-10-15, 72 NRC 278 (2010); LBP-10-16, 72 NRC 394-95 (2010); LBP-10-21, 72 NRC 651 (2010)

in making the findings required for issuance of a combined license, the Commission shall treat as resolved those matters resolved in connection with the issuance or renewal of a design certification rule; LBP-10-21, 72 NRC 653 (2010)
intervenors are precluded from challenging ASME inspection requirements in a combined license proceeding because NRC regulations directly incorporate ASME inspection requirements by reference; LBP-10-21, 72 NRC 656 (2010)
no rule or regulation of the Commission concerning the licensing of production and utilization facilities is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; LBP-10-14, 72 NRC 119 n.108 (2010)
10 C.F.R. 2.335(b)
a petition for waiver of rule must be accompanied by an affidavit that identifies the specific aspect or aspects of the subject matter of the proceeding as to which the application of the rule or regulation would not serve the purposes for which the rule or regulation was adopted; LBP-10-15, 72 NRC 279, 310 n.85 (2010)
the sole ground for a waiver of or exception from a regulation 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; LBP-10-15, 72 NRC 279 (2010)
10 C.F.R. 2.335(b)-(d)
petitioner has provided a prima facie showing that the relevant regulations should be waived; LBP-10-15, 72 NRC 273 (2010)
10 C.F.R. 2.335(c)
if a board rules that no prima facie showing has been made on a rule waiver request, then the board may not further consider the matter; CLI-10-29, 72 NRC 560 (2010); LBP-10-15, 72 NRC 279 (2010); LBP-10-22, 72 NRC 688 (2010)
10 C.F.R. 2.335(d)
determination as to whether the criteria for exemption from or waiver of a rule are met and a waiver is warranted is the sole province of the Commission; LBP-10-15, 72 NRC 279 (2010)
if a board concludes that petitioner has made a prima facie showing of special circumstances on a rule waiver request, then the board shall certify the matter directly to the Commission, which may grant or deny the waiver or make whatever determination it deems appropriate; LBP-10-15, 72 NRC 273, 279, 306 (2010); LBP-10-22, 72 NRC 688 (2010)
licensing board's role regarding rule waiver requests is limited to deciding whether the petitioner has made a prima facie showing that the criteria are satisfied; LBP-10-15, 72 NRC 279 (2010)
10 C.F.R. 2.336
applicant has control of a document if applicant has the practical ability to obtain it, albeit for a cost or fee, from the expert consulting firm that generated the document while performing work for the applicant; LBP-12-23, 72 NRC 711 (2010)
the discovery required by this section constitutes the totality of the discovery that may be obtained in informal proceedings; CLI-10-24, 72 NRC 462 (2010)
the relevance standard of this section is even more flexible than the relevance standard of Fed. R. Evid. 401; LBP-12-23, 72 NRC 705 (2010)
the term "document," includes computer models; LBP-12-23, 72 NRC 703 (2010)
the term "document" is not limited to paper documents; LBP-12-23, 72 NRC 703 (2010)
this is a discovery regulation, and the rules are clear that the scope of discovery is broader than the scope of admissible evidence; LBP-12-23, 72 NRC 706 (2010)
use of any proprietary information that is produced is strictly limited to the proceeding for which it is produced, and such information must be promptly returned at the close of this proceeding; LBP-12-23, 72 NRC 713 (2010)
10 C.F.R. 2.336(a)
parties other than the NRC Staff are required to disclose certain information relevant to the admitted contentions; CLI-10-24, 72 NRC 462 n.70 (2010)
10 C.F.R. 2.336(a)(2)(i)
a party may comply by merely providing a description by category and location of all documents subject to mandatory disclosure; LBP-12-23, 72 NRC 714 n.31 (2010)

availability, not possession, custody, or control, is the criterion for the NRC Staff's mandatory disclosure responsibilities; LBP-12-23, 72 NRC 715 n.35 (2010)
because applicant has the practical ability to obtain the groundwater models and supporting modeling information generated by its contractor during the contractor's performance of work in support of applicant's COLA, these documents are within applicant's control for purposes of disclosure; LBP-12-23, 72 NRC 709-10 (2010)
documents that are relevant to the admitted contentions must be disclosed; LBP-12-23, 72 NRC 705 (2010)
each party must make the mandatory disclosures automatically without the need for a party to file a discovery request; LBP-12-23, 72 NRC 701 (2010)
it would not be unduly burdensome or costly to require applicant to disclose models that are maintained under a quality assurance program relatively available for inspection and review by the NRC Staff; LBP-12-23, 72 NRC 714 (2010)
the disclosing party can either provide the other parties with an actual copy of the document or data compilation or can simply describe it and provide it if the other party requests it; LBP-12-23, 72 NRC 701 (2010)
the scope of mandatory disclosure includes computer models, including the underlying data used in a computer analysis or simulation, the programs and programming methods, the software that embodies the computer program, and the model's inputs and outputs; LBP-12-23, 72 NRC 704 (2010)
the third test for mandatory disclosure is that the document must be in the party's possession, custody, or control; LBP-12-23, 72 NRC 706 (2010)
to rule that disclosure is limited to formal contractual deliverables would ignore practical reality and encourage applicants to draft consulting contracts to insulate themselves from the obligation to disclose critical computer modeling information; LBP-12-23, 72 NRC 710 (2010)
within 30 days of admission of a contention, each party must disclose to the other parties all documents and data compilations in the possession, custody, or control of the party that are relevant to the contentions; LBP-12-23, 72 NRC 698, 701 (2010)
10 C.F.R. 2.336(a)(2)(iii)
if a requested document or data compilation is publicly available, then a citation to the document and a description of where it may be publicly obtained is sufficient; LBP-12-23, 72 NRC 701, 711 (2010)
10 C.F.R. 2.336(a)-(b)
the filing of a motion for reconsideration or an interlocutory appeal is not a basis for suspending mandatory disclosures or production of the hearing file; LBP-10-15, 72 NRC 346 (2010)
10 C.F.R. 2.336(b)
Staff's disclosure obligations are not tied to the admitted contentions, but rather, it must make available documents that relate to the application and its review as a whole; CLI-10-24, 72 NRC 462 n.70 (2010)
10 C.F.R. 2.336(b)(3)
availability, not possession, custody, or control, is the criterion for the NRC Staff's mandatory disclosure responsibilities; LBP-12-23, 72 NRC 715 n.35 (2010)
disclosures that NRC Staff must make after issuance of the order granting leave to intervene are described; CLI-10-24, 72 NRC 463 (2010)
if and when NRC Staff relies on a document, then the Staff itself is also obliged to disclose the document, to the extent it is available; LBP-12-23, 72 NRC 715 (2010)
NRC Staff is expected to identify the final version of its guidance document in its next mandatory disclosure update; CLI-10-25, 72 NRC 472 n.20 (2010)
NRC Staff is required to disclose all documents supporting its review of the application or proposed action that is the subject of the proceeding; CLI-10-24, 72 NRC 464 (2010); CLI-10-25, 72 NRC 472 n.17 (2010)
10 C.F.R. 2.336(b)(5)
for documents that are otherwise discoverable, but for which there is a claim of privilege or protected status, NRC Staff must list them and provide sufficient information for assessing their privilege or protected status; CLI-10-24, 72 NRC 463 (2010)
if Staff seeks to withhold a document, it is required to provide sufficient information to support the Staff's claim of protected status; CLI-10-24, 72 NRC 464, 465 n.82 (2010)

should the Staff seek to withhold a guidance document under a claim of privilege or protected status, the document must be identified as required in this section; CLI-10-25, 72 NRC 472 n.20 (2010)
10 C.F.R. 2.336(d)
because of the security-related SUNSI categorization of a Staff guidance document used to assess an application's compliance with NRC rules, the Staff would not have to produce the document but would be required to identify the document as part of its continuing duty of disclosure; CLI-10-24, 72 NRC 464 (2010)
mandatory disclosures are updated every month; LBP-12-23, 72 NRC 698 (2010)
NRC Staff is expected to identify the final version of its guidance document in its next mandatory disclosure update; CLI-10-25, 72 NRC 472 n.20 (2010)
10 C.F.R. 2.336(g)
in a Subpart L proceeding, mandatory disclosure is the only form of discovery allowed, and all other forms are expressly prohibited; LBP-12-23, 72 NRC 702 (2010)
in a Subpart L proceeding, the mandatory disclosure provisions of this section apply; CLI-10-24, 72 NRC 462 (2010); CLI-10-25, 72 NRC 471 (2010)
10 C.F.R. 2.337(f)
a board rested its findings regarding a contention, in part, on certain facts that it officially noticed; CLI-10-17, 72 NRC 6 n.12 (2010)
10 C.F.R. 2.338(g), (h)
upon review of a settlement agreement and the clarification that parties provided, the terms of a proposed settlement agreement satisfy the regulatory requirements; LBP-10-18, 72 NRC 524 (2010)
10 C.F.R. 2.338(i)
the board exercised its authority to request clarification from the parties regarding the extent that a proposed settlement agreement called upon licensee to take specific measures to avoid repetition of the storage drum mislabeling and insufficient operator training that led to a hydrofluoric acid spill event; LBP-10-18, 72 NRC 522 (2010)
10 C.F.R. 2.341(b)(1)
this section provides for discretionary Commission review of a presiding officer's initial decision; CLI-10-17, 72 NRC 11 (2010)
10 C.F.R. 2.341(b)(2)
petitions for review may not exceed 25 pages; CLI-10-17, 72 NRC 45-46 n.247 (2010)
10 C.F.R. 2.341(b)(4)
petition for review satisfies subsections (ii), (iii), and (v) of the standards for review because the challenged portions of the initial decision address significant issues of law and policy that lack governing precedent and raise issues that could affect other license renewal determinations; CLI-10-17, 72 NRC 13 (2010)
review of final initial decisions is granted on a discretionary basis, giving due weight to petitioner's showing that there is a substantial question with respect to one or more of the considerations in this section; CLI-10-18, 72 NRC 72 (2010)
the Commission may take discretionary review of a licensing board's initial decision; CLI-10-23, 72 NRC 219 (2010)
the Commission will consider a petition for review if it raises a substantial question with respect to one or more of the five paragraphs of this section; CLI-10-17, 72 NRC 11 (2010)
10 C.F.R. 2.341(b)(4)(i)
materiality is a requirement for any fact-based argument in a petition for review; CLI-10-17, 72 NRC 30 n.171 (2010)
10 C.F.R. 2.341(b)(4)(ii)
Staff's petition for review is granted on the grounds that the Staff has demonstrated substantial questions as to the Board's correct application of NEPA jurisprudence, and as to whether certain actions taken by the board constituted prejudicial procedural error; CLI-10-18, 72 NRC 73 (2010)
10 C.F.R. 2.341(b)(4)(iv)
petitioner's argument regarding rejection of its contention satisfies the prejudicial procedural error standard for review; CLI-10-17, 72 NRC 13 (2010)

Staff's petition for review is granted on the grounds that the Staff has demonstrated substantial questions as to the Board's correct application of NEPA jurisprudence, and as to whether certain actions taken by the board constituted prejudicial procedural error; CLI-10-18, 72 NRC 73 (2010)
10 C.F.R. 2.341(f)(1)
decisions that involve significant and novel issues, the resolution of which would materially advance the orderly disposition of proceedings, should be referred to the Commission; LBP-10-20, 72 NRC 608-09 (2010)
10 C.F.R. 2.341(f)(2)
interlocutory review will be granted only if petitioner demonstrates that the issue for which it seeks review 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 affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-10-30, 72 NRC 568 (2010)
it is within Commission discretion to grant interlocutory review; CLI-10-29, 72 NRC 560 (2010); CLI-10-30, 72 NRC 568 (2010)
petitions for interlocutory review should address the standards of this section; CLI-10-28, 72 NRC 554 n.2 (2010)
showing necessary for grant of a petition for interlocutory review is described; CLI-10-29, 72 NRC 560 (2010)
10 C.F.R. 2.342
although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 10 n.32 (2010)
10 C.F.R. 2.390
handling of confidential commercial or financial (proprietary) information that has been submitted to the agency is governed by this section; CLI-10-24, 72 NRC 454 n.11 (2010)
10 C.F.R. 2.390(b)
applicant requested that its mitigative strategies report be withheld from public disclosure because it contained security-related information; CLI-10-24, 72 NRC 456 (2010)
10 C.F.R. 2.390(b)(6)
if a board determines that the party is entitled to obtain access to a document that has been claimed as privileged or protected, the board may issue a protective order as necessary to prevent public disclosure of the document; CLI-10-24, 72 NRC 463 (2010)
10 C.F.R. 2.390(d)
applicant requested that its mitigative strategies report be withheld from public disclosure because it contained security-related information; CLI-10-24, 72 NRC 456 (2010)
10 C.F.R. 2.390(f)
if a board determines that the party is entitled to obtain access to a document that has been claimed as privileged or protected, the board may issue a protective order as necessary to prevent public disclosure of the document; CLI-10-24, 72 NRC 463 (2010)
10 C.F.R. 2.704(a)(2)
parties must disclose all relevant documents in their possession, custody, or control; LBP-12-23, 72 NRC 706 (2010)
10 C.F.R. 2.705(b)(1)
it is not a ground for objection to discovery that the information sought will be inadmissible at the hearing if the information sought appears reasonably calculated to lead to the discovery of admissible evidence; LBP-12-23, 72 NRC 706 (2010)
10 C.F.R. 2.705(b)(2)(iii)
disclosure is not required if the burden or expense of the proposed discovery outweighs its likely benefit; LBP-12-23, 72 NRC 714 n.33 (2010)
10 C.F.R. 2.707(a)(1)
a party may file a request for production of documents, and the party receiving such a request must produce any relevant document in its possession, custody, or control; LBP-12-23, 72 NRC 706 (2010)

10 C.F.R. 2.710(d)(2)
summary disposition movant must show that the matter entails no genuine issue as to any material fact and that movant is entitled to a decision as a matter of law; LBP-10-20, 72 NRC 579, 586, 590 (2010)
10 C.F.R. 2.711(c)
cross-examination occurs virtually automatically in Subpart G hearings, subject to normal judicial management and the requirement to file a cross-examination plan; LBP-10-15, 72 NRC 344 (2010)
10 C.F.R. 2.790(a)(4), (b)
financial information relevant to the expected costs of plant operation and maintenance would have been available to petitioners but for its being submitted to the NRC as confidential commercial and financial information; CLI-10-24, 72 NRC 466 (2010)
10 C.F.R. 2.802
anyone may petition the Commission directly for a change in a rule; LBP-10-22, 72 NRC 690 (2010)
if petitioners believe that the specification for climate change no longer provides a reasonable basis for demonstrating compliance based on new scientific evidence, they can petition NRC to amend the rules; LBP-10-22, 72 NRC 689 (2010)
once a proceeding has been closed, petitioners will still have the opportunity to raise issues by using NRC rulemaking procedures; CLI-10-17, 72 NRC 10 n.17 (2010)
10 C.F.R. 2.1203
Staff's disclosure obligations are not tied to the admitted contentions, but rather, it must make available documents that relate to the application and its review as a whole; CLI-10-24, 72 NRC 462 n.70 (2010)
10 C.F.R. 2.1203(a)
the filing of a motion for reconsideration or an interlocutory appeal is not a basis for suspending mandatory disclosures or production of the hearing file; LBP-10-15, 72 NRC 346 (2010)
10 C.F.R. 2.1203(d)
in a Subpart L proceeding, mandatory disclosure is the only form of discovery allowed, and all other forms are expressly prohibited; LBP-12-23, 72 NRC 702 (2010)
in Subpart L proceedings, discovery is generally prohibited except for specified mandatory disclosures under 10 C.F.R. 2.336(f), (a), and (b) and the mandatory production of the hearing file under 10 C.F.R. 2.1203(a); LBP-10-15, 72 NRC 343 (2010); LBP-10-16, 72 NRC 442 (2010)
in Subpart L proceedings, the Commission looks to the mandatory disclosure provisions of 10 C.F.R. 2.336; CLI-10-24, 72 NRC 462 (2010); CLI-10-25, 72 NRC 471 (2010)
10 C.F.R. 2.1204(b)
in Subpart L proceedings, a party seeking to conduct cross-examination must file a written motion and obtain leave of the board; LBP-10-15, 72 NRC 344 (2010)
10 C.F.R. 2.1205(c)
in a Subpart L proceeding, the board must apply the summary disposition standard set forth in Subpart G; LBP-10-20, 72 NRC 579 (2010)
movant must show that the matter entails no genuine issue as to any material fact and that movant is entitled to a decision as a matter of law; LBP-10-20, 72 NRC 586, 590 (2010)
10 C.F.R. 2.1206
once a hearing is granted under Subpart L, an informal oral hearing on the merits is required except in the limited circumstances described in this rule; CLI-10-18, 72 NRC 94 (2010)
10 C.F.R. 2.1207(b)(6)
under Subpart L procedures, the board has the principal responsibility to question the witnesses; LBP-10-15, 72 NRC 343 (2010); LBP-10-16, 72 NRC 442 (2010)
10 C.F.R. 2.1208(b)
to enable presiding officers to fulfill their duty, they have been given broad authority to examine witnesses at evidentiary hearings; CLI-10-17, 72 NRC 47 (2010)
10 C.F.R. 2.1213
although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 10 n.32 (2010)
10 C.F.R. 2.1402(b)
selection of hearing procedures for contentions at the outset of a proceeding is not immutable because the availability of Subpart G procedures depends critically on whether the credibility of eyewitnesses is

important in resolving a contention, and witnesses relevant to each contention are not identified until after contentions are admitted; LBP-10-15, 72 NRC 345 n.99 (2010); LBP-10-16, 72 NRC 443 n.471 (2010)
10 C.F.R. Part 20
petitioner alleges that routine unprotected handling of an unshielded neutron source by licensed operators and uncontrolled access by untrained and unlicensed facility visitors to this neutron source violated ALARA requirements; DD-10-3, 72 NRC 175, 180, 182-83 (2010); DD-10-3, 72 NRC 171 (2010)
10 C.F.R. 20.201(b)
each licensee must evaluate the extent of radiation hazards that may be present; DD-10-3, 72 NRC 180, 181 (2010)
10 C.F.R. 20.1002
the long-established regulatory history and precedent of Part 20 are extended to Part 63; LBP-10-22, 72 NRC 670 n.24 (2010)
10 C.F.R. 20.1003
a "member of the public" is any individual except when that individual is receiving an occupational dose; LBP-10-22, 72 NRC 670 n.24 (2010)
"occupational dose" is defined; LBP-10-22, 72 NRC 670 n.24 (2010)
the ALARA obligation is defined; LBP-10-22, 72 NRC 669 n.21 (2010)
10 C.F.R. 20.1101(b)
applicant must have a program to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable; LBP-10-20, 72 NRC 598 (2010)
contention challenges an element of repository design that does not fall within the ambit of the required procedures and engineering controls of this section; LBP-10-22, 72 NRC 670 (2010)
licensees, including Part 63 licensees, are required to use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable; LBP-10-22, 72 NRC 669 (2010)
plans or procedures are valid means by which radiation exposure may be controlled; LBP-10-20, 72 NRC 611 (2010)
the purpose of the procedures and engineer controls in this section is to ensure ALARA occupational doses and doses to members of the public; LBP-10-22, 72 NRC 670 n.24 (2010)
this section does not exist in isolation, but must be read in context; LBP-10-22, 72 NRC 671 (2010)
10 C.F.R. 20.1301(a)(1)
applicant shall conduct operations so that the total effective dose equivalent to individual members of the public does not exceed 100 millirems per year; LBP-10-20, 72 NRC 598 (2010)
10 C.F.R. 20.1301(e)
applicant shall provide reasonable assurance that the annual dose equivalent to members of the public from planned discharges does not exceed 25 millirems to the whole body; LBP-10-20, 72 NRC 598 (2010)
10 C.F.R. Part 20, Subpart F
each licensee must evaluate the extent of radiation hazards that may be present; DD-10-3, 72 NRC 180 (2010); DD-10-3, 72 NRC 171 (2010)
10 C.F.R. 30.4
byproduct material is defined; LBP-10-16, 72 NRC 376 n.6 (2010)
10 C.F.R. 40.4
byproduct material is defined; LBP-10-16, 72 NRC 376 n.6 (2010)
source material is defined; LBP-10-16, 72 NRC 376 n.6 (2010)
10 C.F.R. 40.9
a claim of inadequacy in the organization of the application cannot be the basis for a contention; LBP-10-16, 72 NRC 410 (2010)
10 C.F.R. 40.31(h)
this section applies to uranium mills, not to in situ leach facilities; LBP-10-16, 72 NRC 434 (2010)
10 C.F.R. 40.32(e)
preconstruction monitoring and testing to establish background information is exempted from the prohibition on commencement of construction; LBP-10-16, 72 NRC 424 (2010)

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10 C.F.R. Part 40, App. A, Criterion 2
byproduct material from in situ extraction operations must be disposed of at existing large mill tailings disposal sites; LBP-10-16, 72 NRC 434 (2010)
10 C.F.R. Part 40, App. A, Criterion 9
a surety arrangement is necessary as a prerequisite to operating, not as a prerequisite to licensing; LBP-10-16, 72 NRC 430 (2010)
applicant must establish a surety arrangement that ensures sufficient funds will be available for decommissioning and decontamination of an NRC-licensed source materials site; LBP-10-16, 72 NRC 430 (2010)
surety arrangements are matters appropriately addressed after issuance of the license, and even after completion of a hearing; LBP-10-16, 72 NRC 430 (2010)
10 C.F.R. 50.5
knowledge of a fact requires not only an awareness of that fact but also an understanding or recognition of its significance; CLI-10-23, 72 NRC 222 (2010)
10 C.F.R. 50.5(a)(2)
any employee of a licensee may not deliberately submit to the NRC information that employee knows to be incomplete or inaccurate in some respect material to the NRC; CLI-10-23, 72 NRC 214 (2010)
the sole issue is whether a person knew the information was materially incomplete and inaccurate at the time it was submitted to the NRC; CLI-10-23, 72 NRC 222 n.48 (2010)
10 C.F.R. 50.7(f)
although not required by this regulation, settlement agreements that contain language reinforcing employees' rights to raise safety concerns and communicate with the NRC avoid the possibility of being construed in a way that could be a violation; DD-10-1, 72 NRC 158 (2010)
nondisparagement clauses in retention bonus agreements are common in employment agreements and NRC should not interfere with these agreements unless it finds such a clause violates this regulation or is applied in a fashion that prevents or retaliates against an employee for engaging in protected activities such as communicating with the NRC; DD-10-1, 72 NRC 158, 162 (2010)
the purpose of this section is to ensure that licensees do not enter into employment agreements that would prohibit, restrict, or otherwise discourage an employee or former employee from providing the NRC with information of regulatory significance; DD-10-1, 72 NRC 158 (2010)
10 C.F.R. 50.9(a)
materially incorrect responses to the NRC's communications are violations; CLI-10-23, 72 NRC 217 (2010)
10 C.F.R. 50.54(hh)(2)
the board issued a protective order governing access to and use of protected information in the correspondence from applicant to NRC Staff regarding the requirements under this section and any related documents; CLI-10-24, 72 NRC 456 (2010)
10 C.F.R. 50.55a(c)(1)
for license renewal, feedwater, core spray, and reactor recirculation outlet nozzles, as part of the reactor coolant pressure boundary, must meet the metal-fatigue requirements for Class 1 components in section III of the ASME Code; CLI-10-17, 72 NRC 17 (2010)
10 C.F.R. 50.55a(g)(4)(v)(A)
the containment vessel is identified as an ASME Code Class MC component in both the inservice inspection subsection of section 50.55a as well as the inspection requirements subsection of the AP1000 DCD; LBP-10-21, 72 NRC 656 n.27 (2010)
10 C.F.R. 50.59
although the analysis required by this section is not the same as the final safety analysis, it is nevertheless a formal, written analysis involving safety issues (accident probabilities and/or consequences); LBP-10-20, 72 NRC 602 n.38 (2010)
petitioner alleges failure to conduct safety review of the modification of the controlled access area by the addition of an undocumented roof access for a siphon breaker experiment; DD-10-3, 72 NRC 175, 176-78 (2010)
the function of this section is to deal with changes to a nuclear power plant, and it requires, as a prerequisite to any such change, that licensee perform safety analyses in addition to those contained in the FSAR; LBP-10-20, 72 NRC 602 (2010)

10 C.F.R. 50.59(c)(1)
under certain conditions, licensee may implement changes to a nuclear power plant without obtaining a license amendment; LBP-10-20, 72 NRC 602 n.37 (2010)
10 C.F.R. 50.59(c)(2)
even if a license amendment is not required, licensee must still conduct such a safety analysis in addition to the original FSAR analysis, to assess the effect of a proposed amendment; LBP-10-20, 72 NRC 602 n.37 (2010)
licensee must apply for a license amendment and obtain NRC's approval before it can implement any proposed change; LBP-10-20, 72 NRC 602 n.37 (2010)
10 C.F.R. 50.59(c)(2)(i)-(viii)
under certain conditions, licensee may implement changes to a nuclear power plant without obtaining a license amendment; LBP-10-20, 72 NRC 602 n.37 (2010)
10 C.F.R. 50.59(d)(1)
even if a license amendment is not required, licensee must still conduct such a safety analysis in addition to the original FSAR analysis, to assess the effect of a proposed amendment; LBP-10-20, 72 NRC 602 n.37 (2010)
10 C.F.R. 50.90
licensee must apply for a license amendment and obtain NRC's approval before it can implement any proposed change; LBP-10-20, 72 NRC 602 n.37 (2010)
10 C.F.R. 50.109
NRC Staff could impose license conditions that are necessary to protect the environment under backfit procedures; CLI-10-30, 72 NRC 567 (2010)
10 C.F.R. Part 50, Appendix B, Criterion XVI
based on results of its problem identification and resolution biennial team inspections with annual followup of selected issues at licensed facilities, NRC takes any appropriate enforcement action to ensure compliance with this regulation; DD-10-1, 72 NRC 160 (2010)
operating reactor licensees are not required to implement an employee concerns program, but are required to establish and implement an effective corrective action program; DD-10-1, 72 NRC 155, 160 (2010)
10 C.F.R. 51.10(a)
NRC has an announced policy to take account of the Council on Environmental Quality regulations voluntarily, subject to certain conditions; CLI-10-18, 72 NRC 75 n.110 (2010); LBP-10-16, 72 NRC 418 n.275 (2010); LBP-10-24, 72 NRC 756 n.74 (2010)
10 C.F.R. 51.14(a)
categorical exclusion encompasses actions that do not individually or cumulatively have a significant effect on the human environment and which the Commission has found to have no such effect in accordance with procedures set out in 10 C.F.R. 51.22, and for which, therefore, neither an environmental assessment nor an environmental impact statement is required; CLI-10-18, 72 NRC 76 (2010)
Staff's obligations for preparation of an environmental assessment are discussed; CLI-10-18, 72 NRC 77 n.116 (2010)
10 C.F.R. 51.22(b)
the Commission may find special circumstances warranting a categorical exclusion upon its own initiative, or upon the request of an interested person; CLI-10-18, 72 NRC 76 n.112 (2010)
10 C.F.R. 51.22(c)(14)(vii)
a categorical exclusion exists for materials licenses associated with irradiators; CLI-10-18, 72 NRC 76 n.113 (2010)
10 C.F.R. 51.23
in the area of waste storage, the Commission largely has chosen to proceed generically through the rulemaking process instead of litigating issues case-by-case in adjudicatory proceedings; CLI-10-19, 72 NRC 99 (2010)
petitioner has made a *prima facie* case that there are special circumstances with regard to the environmental impacts and risks of earthquake-induced spent fuel pool accidents so as to warrant the waiver of portions of this regulation and classifying such spent fuel impacts as Category 1 and to warrant that these impacts be assessed on a site-specific basis; LBP-10-15, 72 NRC 306 (2010)

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10 C.F.R. 51.30(a)
content of an environmental assessment for proposed actions is described; CLI-10-18, 72 NRC 77 (2010)
10 C.F.R. 51.30(a)(1)(ii)
NRC Staff is required under NEPA to evaluate reasonable technological and geographical alternatives to the proposed irradiator; CLI-10-18, 72 NRC 70 (2010)
10 C.F.R. 51.45
a claim of inadequacy in the organization of the application cannot be the basis for a contention; LBP-10-16, 72 NRC 410 (2010)
10 C.F.R. 51.45(b)(1)
applicant must discuss in its environmental report the impact of the proposed action on the environment; LBP-10-16, 72 NRC 418 (2010)
10 C.F.R. 51.45(c)
environmental reports must include an 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; LBP-10-16, 72 NRC 399 n.157 (2010)
10 C.F.R. 51.53(b)
further review of need for power and alternative energy sources are precluded once a construction permit has been issued; CLI-10-29, 72 NRC 558 (2010)
10 C.F.R. 51.53(c)(2)
petitioner has made a prima facie case that there are special circumstances with regard to the environmental impacts and risks of earthquake-induced spent fuel pool accidents so as to warrant the waiver of portions of this regulation and classifying such spent fuel impacts as Category 1 and to warrant that these impacts be assessed on a site-specific basis; LBP-10-15, 72 NRC 306 (2010)
10 C.F.R. 51.53(c)(3)(i)
if an environmental impact is designated as a Category 1 issue in Appendix B to Subpart A of Part 51, then the ER for a license renewal is not required to analyze that issue; LBP-10-15, 72 NRC 293 n.37 (2010)
10 C.F.R. 51.53(c)(3)(ii)(L)
a license renewal environmental report must include a SAMA analysis if not previously considered by the Staff; LBP-10-15, 72 NRC 287, 321 (2010)
applicant's environmental report for its license renewal application must include a severe accident mitigation alternatives analysis, outlining the costs and benefits of potential mitigation measures to reduce severe accident risk or consequences; CLI-10-30, 72 NRC 565 (2010)
because NRC regulations require that the ER and EIS include a SAMA analysis, the adequacy of that analysis is material to the findings NRC must make in a license renewal proceeding; LBP-10-15, 72 NRC 288 (2010)
petitioner asserts that applicant's SAMA analysis is not based on complete information that is necessary and applicant failed to acknowledge the absence of the information or demonstrate that the information is too costly to obtain; LBP-10-15, 72 NRC 287 (2010)
petitioner identified the absence of consideration of terrorist-originated core-damaging events from the applicant's SAMA analysis, and supported that assertion with reference to the relevant law; LBP-10-15, 72 NRC 321 (2010)
10 C.F.R. 51.53(c)(iv)
the generic environmental impact statement must be updated if new and significant information or changed circumstances would change the outcome of the environmental analysis; LBP-10-15, 72 NRC 301, 305-06 (2010)
10 C.F.R. 51.71(d)
important qualitative considerations or factors that cannot be quantified will be discussed in qualitative terms; LBP-10-15, 72 NRC 324 n.78 (2010)
this regulation incorporates not only ameliorative alternatives, but also preventive alternatives; LBP-10-15, 72 NRC 322 n.74 (2010)
10 C.F.R. 51.73
the minimum time required for a draft environmental impact statement comment period is 45 days; LBP-10-24, 72 NRC 741 n.39 (2010)

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10 C.F.R. 51.92(a)(1)
NRC's NEPA-implementing regulations anticipate the possibility of substantial changes in the proposed action that are relevant to environmental concerns and provide that when this happens NRC Staff will prepare a supplement to a final environmental impact statement; LBP-10-17, 72 NRC 516 (2010)
10 C.F.R. 51.92(a)(2)
because NRC regulations require that the ER and EIS include a SAMA analysis, the adequacy of that analysis is material to the findings NRC must make in a license renewal proceeding; LBP-10-15, 72 NRC 288 (2010)
NRC Staff's obligation to consider significant new information in preparing NEPA documents follows from the agency's NEPA regulations; LBP-10-24, 72 NRC 748 (2010)
the generic environmental impact statement must be updated if new and significant information or changed circumstances would change the outcome of the environmental analysis; LBP-10-15, 72 NRC 301, 305-06 (2010)
when dealing with a request to waive an environmental regulation under 10 C.F.R. 2.335(b), NRC should use the significant new information criterion; LBP-10-15, 72 NRC 301 (2010)
10 C.F.R. 51.95(b)
further review of need for power and alternative energy sources are precluded once a construction permit has been issued; CLI-10-29, 72 NRC 558 (2010)
if NRC Staff concludes that the legal threshold for new and significant information has been met, it is authorized to supplement the final environmental statement; CLI-10-29, 72 NRC 563 (2010)
10 C.F.R. 51.107(a)
the board recommends that the issue of waste disposal from in situ leach mining be considered when the mandatory review and hearing are conducted; LBP-10-16, 72 NRC 435 (2010)
10 C.F.R. Part 51, Subpart A, App. A
the alternatives analysis is the heart of the environmental impact statement; LBP-10-14, 72 NRC 110 (2010)
the NEPA hard-look doctrine is subject to a rule of reason that the Commission has interpreted as obligating the agency to consider all reasonable alternatives to the proposed action; LBP-10-14, 72 NRC 110 (2010)
10 C.F.R. Part 51, Subpart A, App. B
petitioner has made a *prima facie* case that there are special circumstances with regard to the environmental impacts and risks of earthquake-induced spent fuel pool accidents so as to warrant the waiver of portions of this regulation and classifying such spent fuel impacts as Category 1 and to warrant that these impacts be assessed on a site-specific basis; LBP-10-15, 72 NRC 306 (2010)
10 C.F.R. Part 51, Subpart A, Appendix B, Table B-1
spent fuel from an additional 20 years of operation can be stored safely, with small environmental effects, at all plants and such impacts are classified as Category 1 issues that are not within the scope of individual license renewal proceedings; LBP-10-15, 72 NRC 294-95 (2010)
10 C.F.R. 52.3(b)(2)
license applications may be modified or improved during the NRC review process; LBP-10-17, 72 NRC 517 n.70 (2010)
10 C.F.R. 52.55(c)
an applicant that references in its combined license application a design for which a design certification application has been docketed but not granted does so at its own risk; LBP-10-20, 72 NRC 581 n.13 (2010)
10 C.F.R. 52.63(a)(1)
the Commission generally refuses to modify, rescind, or impose new requirements on reactor design certification information, unless through rulemaking; LBP-10-21, 72 NRC 653 n.21, 654 (2010)
10 C.F.R. 52.63(a)(5)
in making the findings required for issuance of a combined license, the Commission shall treat as resolved those matters resolved in connection with issuance or renewal of a design certification rule; LBP-10-21, 72 NRC 653, 654 (2010)

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10 C.F.R. 52.79
the fact that an extended low-level radioactive waste storage plan is contingent does not mean that it does not need to comply with this regulation or that it is subject to a relaxed standard; LBP-10-20, 72 NRC 605 (2010)
topics that must be covered in the FSAR and the level of information that is sufficient for each topic are specified; LBP-10-20, 72 NRC 590 (2010)
10 C.F.R. 52.79(a)
applicant must submit its plans for managing low-level radioactive waste for a period of longer than the original AP1000 capacity, and its FSAR must contain information sufficient to reach a final conclusion on all safety matters before the issuance of the combined license; LBP-10-20, 72 NRC 602-03 (2010)
applicant's combined license application fails to address the management of low-level radioactive waste plan for a longer term than envisioned in the COLA; LBP-10-20, 72 NRC 575, 576 (2010)
COL applicants must include required information in its FSAR at a level sufficient to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license; LBP-10-20, 72 NRC 590, 609 (2010)
10 C.F.R. 52.79(a)(3)
combined license applicant's FSAR must describe the kinds and quantities of radioactive materials expected to be produced in the operation and specify the means for controlling and limiting radiation exposures from low-level radioactive waste storage within the limits set forth in Part 20; LBP-10-20, 72 NRC 577, 590, 603, 604 (2010)
detailed design, location, and health impacts information on low-level radioactive waste storage is not required in the combined license application; LBP-10-20, 72 NRC 582-83 (2010)
low-level radioactive waste storage information required by this section is tied to the COL applicant's particular plans for compliance through design, operational organization, and procedures; LBP-10-20, 72 NRC 581 (2010)
there is no requirement for applicant's FSAR to include details regarding building materials and high-integrity containers, exact location, or health impacts on employees for the contingent onsite long-term LLRW storage facility; LBP-10-20, 72 NRC 603 (2010)
this rule pertains to how the COL applicant intends, through its design, operational organization, and procedures, to comply with relevant substantive radiation protection requirements in 10 C.F.R. Part 20; LBP-10-20, 72 NRC 601 (2010)
10 C.F.R. 52.79(a)(4)
combined license applicant's FSAR must specify the design of the low-level radioactive waste storage facility and provide information relative to materials of construction, arrangement, and dimensions sufficient to give reasonable assurance that the design will conform to the design bases with adequate margin for safety; LBP-10-20, 72 NRC 604 (2010)
10 C.F.R. 52.79(a)(11)
a combined license application must include a description of the programs, and their implementation, necessary to ensure that the systems and components meet the requirements of the ASME Boiler and Pressure Vessel Code in accordance with 10 C.F.R. 50.55a; LBP-10-21, 72 NRC 656 (2010)
10 C.F.R. 52.80(d)
the board issued a protective order governing access to and use of protected information in the correspondence from applicant to NRC Staff regarding the requirements under this section and any related documents; CLI-10-24, 72 NRC 456 (2010)
10 C.F.R. 54.3
time-limited aging analyses are defined as being contained in the current licensing basis; CLI-10-17, 72 NRC 33 (2010)
10 C.F.R. 54.3(a)
time-limited aging analysis is defined; CLI-10-17, 72 NRC 12 n.48 (2010)
10 C.F.R. 54.4
scope of a license renewal proceeding is limited to review of plant structures and components requiring an aging management review for the period of extended operation and to the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-10-21, 72 NRC 654 n.24 (2010)

10 C.F.R. 54.21(a)
contention that license renewal applicant's aging management plan relating to aging and degradation of buried, below-grade, underground, or hard-to-access safety-related electrical cables due to submergence and wet environments is inadequate is inadmissible; LBP-10-19, 72 NRC 545 (2010)
scope of a license renewal proceeding is limited to review of plant structures and components requiring an aging management review for the period of extended operation and to the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-10-21, 72 NRC 654 n.24 (2010)
10 C.F.R. 54.21(a)(3)
a license renewal applicant seeking to satisfy aging management requirements by reliance upon an aging management plan would rely on this section; CLI-10-17, 72 NRC 18 (2010)
aging management review addresses activities identified in this section regarding the integrated plant assessment; CLI-10-17, 72 NRC 16 (2010)
license renewal applicants must demonstrate that the effects of aging will be adequately managed so that the intended functions will be maintained consistent with the current licensing basis for the period of extended operation; LBP-10-15, 72 NRC 333 (2010)
10 C.F.R. 54.21(c)
scope of a license renewal proceeding is limited to review of plant structures and components requiring an aging management review for the period of extended operation and to the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-10-21, 72 NRC 654 n.24 (2010)
10 C.F.R. 54.21(c)(1)
aging management review addresses activities identified in section regarding the evaluation of time-limited aging analyses; CLI-10-17, 72 NRC 16 (2010)
this section permits a demonstration after issuance of a renewed license, i.e., that applicant's use of an aging management program identified in the GALL Report constitutes reasonable assurance that it will manage the targeted aging effect during the renewal period; CLI-10-17, 72 NRC 36 (2010)
10 C.F.R. 54.21(c)(1)(i)
a license renewal applicant seeking to satisfy aging management requirements by reliance upon existing time-limited aging analyses in its current licensing basis would rely on this section; CLI-10-17, 72 NRC 18 (2010)
if applicant can demonstrate by plant operating experience that the initially predicted number of stress cycles would not be exceeded even in the extended 20-year operating period, then this section would be satisfied; CLI-10-17, 72 NRC 19 n.82 (2010)
regarding use of the cumulative usage factor, an applicant who chooses to rely upon an existing time-limited aging analysis may demonstrate compliance with the rule by showing that the existing CUF calculations remain valid because the number of assumed transients would not be exceeded during the period of extended operation; CLI-10-17, 72 NRC 18 (2010)
10 C.F.R. 54.21(c)(1)(i)-(iii)
license renewal applications must include an evaluation of time-limited aging analyses demonstrating that the analyses will remain valid for the period of extended operation, have been projected to the end of the period of extended period of operation, or the effects of aging on the intended functions will be adequately managed for the period of extended operation; CLI-10-17, 72 NRC 18 (2010)
some license renewal applicants have sought to satisfy more than one of the three subsections; CLI-10-17, 72 NRC 18 (2010)
10 C.F.R. 54.21(c)(1)(ii)
a license renewal applicant seeking to satisfy aging management requirements by reliance upon existing time-limited aging analyses in its current licensing basis would rely on this section; CLI-10-17, 72 NRC 18 (2010)
applicant may demonstrate compliance with the rule by showing that the CUF calculations have been reevaluated based on an increased number of assumed transients to bound the period of extended operation and that the resulting CUF remains less than or equal to 1.0 for the period of extended operation; CLI-10-17, 72 NRC 19 (2010)

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10 C.F.R. 54.21(c)(1)(iii)
a license renewal applicant seeking to satisfy aging management requirements by reliance on an aging management plan would rely instead on this section; CLI-10-17, 72 NRC 18 (2010)
a license renewal applicant who addresses the cumulative usage factor issue via an aging management program may reference Chapter X of the Generic Aging Lessons Learned Report; CLI-10-17, 72 NRC 19 (2010)
an aging management program is intended to manage the effects of aging on a particular component by, e.g., ensuring that the fatigue usage factor for the component does not exceed the design code limit; CLI-10-17, 72 NRC 12 n.44 (2010)
the "adequate management" requirement is generally accomplished by establishing a prospective aging management or similar plan; CLI-10-17, 72 NRC 18 (2010)
the Generic Aging Lessons Learned Report sets forth three ways that a license renewal applicant proposing to use an aging management plan may comply with the requirements of this section; CLI-10-17, 72 NRC 12 (2010)
10 C.F.R. 54.29
past actions and performance provide objective evidence as to future performance and can be used in the reasonable assurance determination; LBP-10-15, 72 NRC 340 (2010)
this regulation must be read in conjunction with 10 C.F.R. 54.30; LBP-10-15, 72 NRC 338 (2010)
10 C.F.R. 54.29(a)
a narrow and specific contention that alleges facts, with supporting documentation, of a longstanding and continuing pattern of noncompliance or management difficulties, that are reasonably linked to whether the licensee will actually be able to adequately manage aging in accordance with the current licensing basis during the period of extended operation, can be an admissible contention; LBP-10-15, 72 NRC 336 (2010)
a reasonable assurance finding with regard to managing the effects of aging and time-limited aging analyses is required; CLI-10-17, 72 NRC 16 n.72 (2010)
although license renewal review focuses on management of aging, aging is a continuous process and the aging in question does not need to be unique to the period of extended operation to be relevant; LBP-10-15, 72 NRC 340 (2010)
applicant's metal fatigue analyses for core spray and reactor recirculation outlet nozzles failed to comply with all relevant requirements and therefore applicant could not demonstrate that there was a reasonable assurance of safety; LBP-10-19, 72 NRC 532 (2010)
because a renewed license will incorporate the aging management programs, the extent to which a plant complies with the elements of its AMPs will be subject to NRC's continuing oversight activities during the period of extended operation and therefore cannot be considered under this section; LBP-10-15, 72 NRC 329 (2010)
contention that license renewal applicant's aging management plan relating to aging and degradation of buried, below-grade, underground, or hard-to-access safety-related electrical cables due to submergence and wet environments is inadequate is inadmissible; LBP-10-19, 72 NRC 545 (2010)
NRC must decide whether applicant has demonstrated that actions will be taken to manage the effects of aging during the period of extended operation such that there is reasonable assurance that activities that would be authorized by the renewed license will continue to be conducted in accordance with the current licensing basis; LBP-10-15, 72 NRC 331 (2010)
this section speaks of both past and future actions, referring specifically to those that have been or will be taken with respect to managing the effects of aging and time-limited aging analyses; CLI-10-17, 72 NRC 33 (2010)
under narrowly limited circumstances, the reasonable assurance determination can be informed by applicant's past performance if it is an ongoing pattern of difficulty in managing activities and compliance that have a direct link to the applicant's ability to implement its aging management program in accordance with the current licensing basis; LBP-10-15, 72 NRC 333 (2010)
10 C.F.R. 54.29(a)(1)-(2)
aging management-related findings that the Commission must make to authorize renewal of an operating license are discussed; CLI-10-17, 72 NRC 17 (2010)

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10 C.F.R. 54.30
licensee's compliance with its current licensing basis during the current licensing term is not within the scope of the license renewal review; LBP-10-15, 72 NRC 331 (2010)
10 C.F.R. 54.30(a)
licensee is obliged to correct current noncompliances now; LBP-10-15, 72 NRC 339 (2010)
10 C.F.R. 54.30(b)
whether or not licensee complies with its obligation to correct current noncompliances now is not within the scope of license renewal review; LBP-10-15, 72 NRC 339 (2010)
10 C.F.R. 54.33
in the license renewal context, licensee must comply with Part 50 regulations, including the provisions requiring compliance with the ASME Code, during the period of extended operation; CLI-10-17, 72 NRC 16-17 (2010)
10 C.F.R. 54.35
for license renewal, licensee must comply with Part 50 regulations, including provisions requiring compliance with the ASME Code, during the period of extended operation; CLI-10-17, 72 NRC 16-17 (2010)
10 C.F.R. Part 63
although the Commission no longer mandates separate construction and operating license applications for nuclear power plants, it nonetheless contemplated a multistage licensing scheme for the high-level waste repository expressly requiring DOE to submit additional design information and to update its application at later stages; LBP-10-22, 72 NRC 678 (2010)
10 C.F.R. 63.21
the Commission expressly addressed the distinction between a plan and a description of a plan; LBP-10-22, 72 NRC 682 (2010)
10 C.F.R. 63.21(a)
the high-level waste repository license application must be as complete as possible in light of the information that is reasonably available at the time of docketing; LBP-10-22, 72 NRC 677 (2010)
10 C.F.R. 63.21(c)(7)
had the Commission intended to require more than a description of retrieval plans, it could have said so explicitly, as it did in other parts of section 63.21 with respect to other plans; LBP-10-22, 72 NRC 682 (2010)
10 C.F.R. 63.21(c)(18)
the high-level waste repository license application must give special attention to those items that may significantly influence the final design; LBP-10-22, 72 NRC 677 (2010)
10 C.F.R. 63.24
before issuance of a license to receive and possess waste material, DOE must update its application; LBP-10-22, 72 NRC 686 (2010)
10 C.F.R. 63.24(b)(1)
before any waste may be received at the high-level waste repository, DOE must update its application with additional design data obtained during construction; LBP-10-22, 72 NRC 678 (2010)
10 C.F.R. 63.31(a)(2)
before authorizing construction of the proposed repository, the Commission must determine that there is reasonable expectation that the materials can be disposed of without unreasonable risk to the health and safety of the public; LBP-10-22, 72 NRC 685 (2010)
10 C.F.R. 63.41(a)
the Commission may issue a license to receive and possess high-level waste upon finding that the construction of the facility has been substantially completed; LBP-10-22, 72 NRC 685 (2010)
10 C.F.R. 63.41(a)(2)
before issuing a license to receive and possess high-level waste at the repository, the Commission must find that construction of any underground storage space required for initial operation has been substantially completed; LBP-10-22, 72 NRC 685 (2010)
10 C.F.R. 63.102
this section merely provides a functional overview of Subpart E; LBP-10-22, 72 NRC 676 (2010)

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10 C.F.R. 63.102(c)
three phases of high-level waste repository operations are recognized; LBP-10-22, 72 NRC 685 n.118 (2010)
10 C.F.R. 63.102(j)
whether a feature, event, or process must be included in the performance assessment for the period after 10,000 years is not governed by this section; LBP-10-22, 72 NRC 676 (2010)
10 C.F.R. 63.111(a)(1)
the geologic repository operations area must meet the requirements of Part 20; LBP-10-22, 72 NRC 671 (2010)
10 C.F.R. 63.113
"adequate confidence" in the performance assessment is derived from sufficient analyses, data, and the technical basis offered to demonstrate compliance with postclosure performance objectives; LBP-10-22, 72 NRC 687 (2010)
the performance margins analysis cannot be used to validate or provide confidence in the total system performance assessment if its data and models are not qualified under DOE's quality assurance program; LBP-10-22, 72 NRC 686 (2010)
10 C.F.R. 63.114
the performance margins analysis cannot be used to validate or provide confidence in the total system performance assessment if its data and models are not qualified under DOE's quality assurance program; LBP-10-22, 72 NRC 686 (2010)
10 C.F.R. 63.114(a)(5)
only features, events, and processes that produce significant changes in releases or doses within the first 10,000 years after disposal must be included in performance assessments; LBP-10-22, 72 NRC 676 (2010)
10 C.F.R. Part 63, Subpart G
the performance margins analysis cannot be used to validate or provide confidence in the total system performance assessment if its data and models are not qualified under DOE's quality assurance program; LBP-10-22, 72 NRC 686 (2010)
10 C.F.R. 63.141
a quality assurance program is required to provide adequate confidence that the geologic repository and it structures, systems, or components will perform satisfactorily in service; LBP-10-22, 72 NRC 686-87 (2010)
10 C.F.R. 63.142
if the performance margins analysis is needed to establish adequate confidence in the total system performance assessment, then it is subject to the quality assurance requirements of this section; LBP-10-22, 72 NRC 687 (2010)
10 C.F.R. 63.142(a)
the quality assurance program must be applied to all structures, systems, and components that are important to waste isolation and to related activities, defined as including analyses of samples and data; LBP-10-22, 72 NRC 687 (2010)
10 C.F.R. 63.305
climate projections should be based on cautious but reasonable assumptions; LBP-10-22, 72 NRC 673 (2010)
this section does not say anything about analyzing future climate based upon the historical geologic record; LBP-10-22, 72 NRC 672 (2010)
10 C.F.R. 63.342
although the petition for rule waiver fails to satisfy the strict requirements for a waiver, the Commission might wish to revisit the rule on its own initiative; LBP-10-22, 72 NRC 666 (2010)
whether a feature, event, or process must be included in the performance assessment for the period after 10,000 years is governed by this section, not by section 63.102(j); LBP-10-22, 72 NRC 676 (2010)
10 C.F.R. 63.342(c)
analysis is required for the post-10,000-year period of certain specified features, events, and processes (which do not include erosion), as well as all FEPs that are screened in during the first 10,000 years pursuant to section 63.342(a); LBP-10-22, 72 NRC 675 (2010)

applicant must assess the effects of climate change during the 990,000-year period regardless of whether it necessarily must assess climate change during the initial 10,000-year period under the criteria set forth in section 63.342(a) and (b); LBP-10-22, 72 NRC 673-74 (2010)
erosion cannot be screened in under section 63.342(a) if there is no showing that erosion causes increases in radiological exposures or releases within the first 10,000 years; LBP-10-22, 72 NRC 666, 675, 676, 677 (2010)
10 C.F.R. 63.342(c)(2)
applicant may perform its climate change analysis using a specified percolation rate; LBP-10-22, 72 NRC 674 (2010)
applicant may simplify its assessment of climate change during the 990,000-year period; LBP-10-22, 72 NRC 674 (2010)
applicant's climate change analysis for the 990,000-year period may be limited to the effects of increased water flow through the repository as a result of climate change; LBP-10-22, 72 NRC 674 (2010)
DOE may elect to use the deep percolation flux to analyze the effects of climate change during the post-10,000-year period, regardless of whether it is required to analyze the effects of climate change during the initial 10,000-year period; LBP-10-22, 72 NRC 688 (2010)
10 C.F.R. Part 71
petitioner alleges release of controlled byproduct nuclear materials in containers not certified for transport of such materials on public roads and not labeled with the required labeling; DD-10-3, 72 NRC 175, 178-80 (2010)
10 C.F.R. 73.56
denial of unescorted access was based on an existing tax lien with the rationale that trustworthiness and reliability could not be assured because petitioner had not made an effort to resolve the tax lien; DD-10-2, 72 NRC 164 (2010)
10 C.F.R. 73.56(d)(5)
licensees, applicants, contractors, and vendors shall ensure that the full credit history of any individual who is applying for unescorted access or unescorted access authorization is evaluated; DD-10-2, 72 NRC 167 (2010)
36 C.F.R. 800.1(c)(2)(iii)
federal agencies should be sensitive to the special concerns of Indian tribes in historic preservation issues, which often extend beyond Indian lands to other historic properties, and should invite the governing body of the responsible tribe to be a consulting party and to concur in any agreement; LBP-10-16, 72 NRC 393 (2010)
36 C.F.R. 800.2(c)(2)(ii)
a tribe may become a consulting party if its property, potentially affected by a federal undertaking, has religious or cultural significance; LBP-10-16, 72 NRC 392 (2010)
36 C.F.R. 800.2(c)(2)(ii)(A)
a consulting tribe is entitled to a reasonable opportunity to identify its concerns about historic properties, to advise on the identification and evaluation of historic properties (including those of traditional religious and cultural importance), to articulate its views on the undertaking's effects on such properties, and to participate in the resolution of adverse effects; LBP-10-16, 72 NRC 392-93 (2010)
36 C.F.R. 800.2(c)(2)(ii)(D)
it is not the duty of applicant to consult with a Tribe regarding cultural resources at a proposed site, but instead is the duty of the agency to initiate and follow through with the consultation process; LBP-10-16, 72 NRC 422 n.303 (2010)
NEPA itself is binding only on the agency; LBP-10-16, 72 NRC 432 (2010)
40 C.F.R. 190.10
applicant shall provide reasonable assurance that the annual dose equivalent to members of the public from planned discharges not exceed 25 millirems to the whole body; LBP-10-20, 72 NRC 598 (2010)
40 C.F.R. 1500.1(b)
NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken; CLI-10-18, 72 NRC 93 n.207 (2010)
40 C.F.R. 1502.8
environmental documents must be written in plain language so that decisionmakers and the public can readily understand them; LBP-10-16, 72 NRC 432 (2010)

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40 C.F.R. 1502.14
an environmental impact statement must include a detailed statement of reasonable alternatives to a proposed action; LBP-10-24, 72 NRC 755 (2010)
the alternatives analysis is the heart of the environmental impact statement; LBP-10-24, 72 NRC 756 (2010)
40 C.F.R. 1502.14(a)
NRC Staff is required under NEPA to evaluate reasonable technological and geographical alternatives to the proposed irradiator; CLI-10-18, 72 NRC 70 (2010)
40 C.F.R. 1502.16(g)
cultural and historic resources are to be considered as part of the environmental impacts assessment that must be completed; LBP-10-16, 72 NRC 418 (2010)
40 C.F.R. 1502.22
petitioner asserts that applicant's SAMA analysis is not based on complete information that is necessary and applicant failed to acknowledge the absence of the information or demonstrate that the information is too costly to obtain; LBP-10-15, 72 NRC 287 (2010)
40 C.F.R. 1502.22(a)
this section only applies if the incomplete information is essential to a reasoned choice among alternatives; LBP-10-15, 72 NRC 283 (2010)
40 C.F.R. 1502.22(b)(4)
impacts that are reasonably foreseeable under NEPA must be analyzed publicly, even if their probability of occurrence is low; CLI-10-18, 72 NRC 90 (2010)
40 C.F.R. 1508.4
certain actions are designated as categorically excluded from the requirement to prepare an environmental assessment or an environmental impact statement; CLI-10-18, 72 NRC 75 (2010)
40 C.F.R. 1508.8
indirect effects are distinguished from connected actions under 40 C.F.R. 1508.25(a)(1); CLI-10-18, 72 NRC 89 n.187 (2010)
40 C.F.R. 1508.9
one purpose of an environmental assessment is to facilitate preparation of an environmental impact statement when one is necessary; CLI-10-18, 72 NRC 77 n.116 (2010)
40 C.F.R. 1508.9(b)
NRC Staff is required under NEPA to evaluate reasonable technological and geographical alternatives to the proposed project; CLI-10-18, 72 NRC 70 (2010)
40 C.F.R. 1508.25(a)(1)
connected actions under 40 C.F.R. 1508.8 are distinguished from indirect effects; CLI-10-18, 72 NRC 89 n.187 (2010)

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28 U.S.C. § 455
the disqualification standard under this section is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification under 10 C.F.R. 2.313, and it provides a helpful framework for such an assessment; CLI-10-22, 72 NRC 203 (2010)
28 U.S.C. § 455(b)(1)
a judge should disqualify himself if he has personal knowledge of disputed evidentiary facts concerning the proceeding; CLI-10-22, 72 NRC 204 (2010)
Administrative Procedure Act, 5 U.S.C. § 552(a)(4)(B)
a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed *de novo*; CLI-10-24, 72 NRC 461 (2010)
Administrative Procedure Act, 5 U.S.C. § 556(d)
the standard for allowing parties to conduct cross-examination is the same under Subparts G and L; LBP-10-15, 72 NRC 343-44 (2010)
there is no absolute right to cross-examination; LBP-10-15, 72 NRC 344 (2010)
Archaeological Resources Protection Act, 16 U.S.C. § 470aa-470mm
criteria and procedures pursuant to which a federal land manager may issue excavation permits for federal lands are provided as well as notification to Indian tribe if permits may result in harm to cultural or religious sites; LBP-10-16, 72 NRC 392 n.111 (2010)
Atomic Energy Act, 11(e)(2), 42 U.S.C. § 2014
byproduct material is defined; LBP-10-16, 72 NRC 376 n.5 (2010)
Atomic Energy Act, 11(z), 42 U.S.C. § 2014
source material is defined; LBP-10-16, 72 NRC 376 n.5 (2010)
Atomic Energy Act, 182, 42 U.S.C. § 2232
as part of its licensing and oversight responsibilities, the Commission may consider the adequacy of a licensee's corporate organization and the integrity of its management; LBP-10-15, 72 NRC 337 (2010)
decisions under the bad actor doctrine are generally quite fact specific; LBP-10-15, 72 NRC 337 n.91 (2010)
each application must specifically state such information as the Commission may determine to be necessary to decide the character of the applicant; LBP-10-15, 72 NRC 337 (2010)
Atomic Energy Act, 189a, 42 U.S.C. § 2239(a)(1)(A)
issues material to the agency's licensing decision must be subject to adjudicatory challenge; LBP-10-21, 72 NRC 657 n.28 (2010)
NRC must provide a hearing upon the request of any person whose interest may be affected by the proceeding; LBP-10-16, 72 NRC 380 (2010); LBP-10-17, 72 NRC 515 (2010)
Atomic Energy Act, 191(a), 42 U.S.C. § 2241(a)
Congress considers the Atomic Safety and Licensing Board to be a panel of experts; CLI-10-17, 72 NRC 49 (2010)
Clean Water Act, 521(c)(2), 33 U.S.C. § 1371(c)(2)
NRC is prohibited from using NEPA to impose additional effluent limitations on an applicant's wastewater discharges to surface waters; LBP-10-14, 72 NRC 136-37 (2010)
National Environmental Policy Act, 42 U.S.C. § 4331(b)
federal agencies are required to consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives; LBP-10-24, 72 NRC 729 n.16 (2010)

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National Environmental Policy Act, 42 U.S.C. § 4332
when an agency proposes a major federal action significantly affecting the quality of the human environment, preparation of an environmental impact statement is required; LBP-10-24, 72 NRC 729 n.16 (2010)
National Environmental Policy Act, 102(2)(C), 42 U.S.C. § 4332(2)(C)
federal agencies are required, to the fullest extent possible, to include in every recommendation or report on proposals for major federal actions significantly affecting the quality of the human environment a detailed statement on the environmental impact of the proposed action, any adverse environmental effects that cannot be avoided, alternatives to the proposed action, relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible and irretrievable commitments of resources that would be involved in the proposed action; CLI-10-18, 72 NRC 74 (2010)
primary obligation to satisfy the requirements of NEPA rests on the agency; CLI-10-18, 72 NRC 82 (2010)
National Environmental Policy Act, 102(2)(C)(iii), 42 U.S.C. § 4332(2)(C)(iii)
an environmental impact statement must include a detailed statement of reasonable alternatives to a proposed action; LBP-10-24, 72 NRC 755 (2010)
National Environmental Policy Act, 102(2)(E), 42 U.S.C. § 4332(2)(E)
although the discussion of alternatives in the environmental assessment need only be brief, it must be sufficient to fully comply with the requirement to study, develop, and describe appropriate alternatives; CLI-10-18, 72 NRC 70 (2010)
as long as all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated, the regulatory requirement is satisfied; CLI-10-18, 72 NRC 70 (2010)
federal agencies are required to study, develop, and describe appropriate alternatives to recommend courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; CLI-10-18, 72 NRC 75 (2010)
the alternatives provision of this section applies both when an agency prepares an environmental impact statement and when it prepares an environmental assessment; CLI-10-18, 72 NRC 75 (2010)
the range of alternatives that must be considered need not extend beyond those reasonably related to the purposes of the project and a rule of reason necessarily informs that choice; CLI-10-18, 72 NRC 70 (2010)
National Historic Preservation Act, 106, 16 U.S.C. § 470f
Indian tribes have a procedural interest in identifying, evaluating, and establishing protections for historic and cultural resources; LBP-10-16, 72 NRC 391, 393 (2010)
prior to issuance of any license, federal agencies must take into account the effect of the federal action on any area eligible for inclusion in the National Register of Historic Places; LBP-10-16, 72 NRC 392 (2010)
National Historic Preservation Act, 16 U.S.C. § 470 to 470x-6
federal agencies must follow notification and consultation procedures prior to a federal undertaking to consider the undertaking's effect on historic properties; LBP-10-16, 72 NRC 392 n.111 (2010)
National Historic Preservation Act, 16 U.S.C. § 470(b)(4)
the nation's historical heritage is in the public interest so that its vital legacy of cultural, educational, aesthetic, inspirational, economic, and energy benefits will be maintained and enriched for future generations of Americans; LBP-10-16, 72 NRC 392 (2010)
Native American Graves Protection and Repatriation Act, 25 U.S.C. §§ 3001-13 (1990)
notification and inventory procedures are required so that Indian cultural objects and burial remains found on federal lands will be repatriated to the appropriate tribe; LBP-10-16, 72 NRC 392 n.111 (2010)
Nuclear Waste Policy Act, 121(b)(1)(B), 42 U.S.C. § 10141(b)(1)(B) (2009)
no requirement for a quantitative evaluation of an individual barrier's capabilities appears in the statutory language; LBP-10-22, 72 NRC 680 (2010)
NRC is given flexibility in determining how best to provide for the use of a system of multiple barriers in the design of the repository; LBP-10-22, 72 NRC 681 (2010)
NRC's licensing regulations must provide for the use of a system of multiple barriers in the design of the repository; LBP-10-22, 72 NRC 680 (2010)

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OTHERS

American Heritage Dictionary of the English Language (4th ed. 2010)
a "means" either consists of or includes a "method" or "strategy" for achieving an end; LBP-10-20, 72 NRC 603 n.5 (2010)
a "means" is a method, a course of action, or an instrument by which an act can be accomplished or an end achieved; LBP-10-20, 72 NRC 603 n.5 (2010)
Black's Law Dictionary 153 (9th ed. 2009)
"authority" is defined as a legal writing taken as definitive or decisive, especially a judicial or administrative decision cited as a precedent, or a source, such as a statute, case, or treatise, cited in support of a legal argument; LBP-10-21, 72 NRC 652 n.20 (2010)
Black's Law Dictionary 1310 (9th ed. 2009)
"*prima facie* case" is defined; LBP-10-15, 72 NRC 279, 302-03 (2010)
Cambridge Dictionary of American English (2d ed. 2010)
a "means" is a method or way of doing something; LBP-10-20, 72 NRC 603 n.5 (2010)
Collins English Dictionary — Complete and Unabridged (2003)
a "means" is the medium, method, or instrument used to obtain a result or achieve an end; LBP-10-20, 72 NRC 603 n.5 (2010)
D.C. Rules of Prof'l Conduct R. 1.16
an attorney is not permitted to withdraw from representing a client unless withdrawal can be accomplished without material adverse effect to the client's interests; LBP-10-21, 72 NRC 638 n.6 (2010)
D.D.C. R. 83.6(c)
absent written consent of the party and the prior appearance of another attorney, many courts require that an attorney file a motion to withdraw; LBP-10-21, 72 NRC 638 n.6 (2010)
Fed. R. App. P. 28(j)
generally, an additional authorities filing would be a submission that is the functional equivalent of a letter supplementing authorities; LBP-10-21, 72 NRC 652 n.20 (2010)
Fed. R. Civ. P. 12(b)(6)
prima facie case is one that is sufficient to withstand a demurrer, and is akin to the Federal Rules that allow for the dismissal of a lawsuit (without ever getting to a trial or motion for summary judgment) for failure to state a claim upon which relief can be granted; LBP-10-15, 72 NRC 303 n.52 (2010)
Fed. R. Civ. P. 26(a)(1)(A)(ii)
parties are required to make an initial disclosure including a copy, or a description by category and location, of all documents, electronically stored information, and tangible things that the disclosing party has in its possession, custody, or control; LBP-12-23, 72 NRC 707 (2010)
Fed. R. Civ. P. 26(b)(1)
it is not a ground for objection to discovery that the information sought will be inadmissible at the hearing if the information sought appears reasonably calculated to lead to the discovery of admissible evidence; LBP-12-23, 72 NRC 706 (2010)
the "need for SUNSI" inquiry is essentially a relevance inquiry just as a federal court litigant must show that information sought in discovery is relevant to its claims or defenses; CLI-10-24, 72 NRC 460 (2010)
Fed. R. Civ. P. 34(a)(1)
a party can request and obtain a copy of any document in the possession, custody, or control of the party upon whom the request is served; LBP-12-23, 72 NRC 707 (2010)

the rule is essentially the same as NRC's "production of documents" regulation, 10 C.F.R. 2.707(a)(1); LBP-12-23, 72 NRC 707 (2010)

Fed. R. Evid. 201(e)
a board rested its findings regarding a contention, in part, on certain facts that it officially noticed; CLI-10-17, 72 NRC 6 n.12 (2010)

Fed. R. Evid. 401
"relevant evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence; LBP-12-23, 72 NRC 705 (2010)

Federal Rules Decisions; Administrative Office of the U.S. Courts; Federal Rules of Civil Procedure; Adoption and Amendments to Civil Rules, 234 F.R.D. 219 (Apr. 12, 2006)
the Federal Rules of Civil Procedure were amended in 2006 to expressly include electronically stored information; LBP-12-23, 72 NRC 703 n.13 (2010)

James Wm. Moore et al., Moore's Federal Practice ¶34.12[2][a] (3d ed. 2010) at 34-71
the phrase "possession, custody, or control" is in the disjunctive, and only one of the enumerated requirements need be met; LBP-12-23, 72 NRC 707 (2010)

James Wm. Moore et al., Moore's Federal Practice ¶34.12[2][a] (3d ed. 2010) at 34-75
documents are deemed to be within the control of a party if the party has the right to obtain the documents on demand; LBP-12-23, 72 NRC 707-08 (2010)
the term "control" is broadly construed; LBP-12-23, 72 NRC 707 n.21 (2010)

James Wm. Moore et al., Moore's Federal Practice ¶34.12[2][a] (3d ed. 2010) at 34-79
the concept of control extends to situations in which the party has the practical ability to obtain materials in the possession of another, even if the party cannot compel the other person or entity to produce the requested materials; LBP-12-23, 72 NRC 708 n.23 (2010)

James Wm. Moore et al., Moore's Federal Practice ¶34.12[2][a] (3d ed. 2010) at 34-80
practical control by a party over the person in possession of the document is deemed sufficient to require that the party produce the document; LBP-12-23, 72 NRC 708 n.24 (2010)

James Wm. Moore et al., Moore's Federal Practice ¶34.12[2][a] (3d ed. 2010) at 37-73
legal ownership of documents for which discovery is sought is not required, nor is actual possession necessary if the party has control; LBP-12-23, 72 NRC 707 n.20 (2010)

James Wm. Moore et al., Moore's Federal Practice ¶34.12[2][a] (3d ed. 2010) at 37-74
a document is deemed to be within a party's control if it is held by the party's attorney, expert, insurance company, accountant, or agent; LBP-12-23, 72 NRC 708 n.23 (2010)

MacMillan English Dictionary (American English ed.) (2010)
a "means" is a method for doing or achieving something; LBP-10-20, 72 NRC 603 n.5 (2010)

Oxford Dictionaries Online, http://oxforddictionaries.com/view/entry/m_en_us1266773#m_en_us1266773
a "means" is an action or system by which a result is achieved — a method; LBP-10-20, 72 NRC 603 n.5 (2010)

Webster's Third New International Dictionary (Unabridged) 616 (1976)
the word "details" has a pejorative connotation, i.e., that intervenors or the board is asking for minutiae or matters that relate to minute points, small and subordinate parts, or minor parts; LBP-10-20, 72 NRC 599 (2010)

Webster's Third New International Dictionary 2116 (4th ed. 1976)
the ordinary meaning of "significant" is "having meaning," "full of import," "indicative," "having or likely to have influence or effect," "deserving to be considered; LBP-10-24, 72 NRC 736 (2010)

SUBJECT INDEX

ABEYANCE OF CONTENTION
a board could refer a contention relating to a certified design to the Staff for consideration in the design certification rulemaking and hold that contention in abeyance if the contention is otherwise admissible; LBP-10-21, 72 NRC 616 (2010)
ABEYANCE OF PROCEEDING
consideration of pending issues will not be postponed until the resolution of other issues unrelated to the adjudication; CLI-10-17, 72 NRC 1 (2010)
the question whether to hold an NRC enforcement proceeding in abeyance pending a related criminal prosecution is generally suitable for interlocutory Commission review because, unlike most interlocutory questions, the abeyance issue cannot await the end of the proceeding because it becomes moot; CLI-10-29, 72 NRC 556 (2010)
ABUSE OF DISCRETION
a board abused its discretion in reformulating and admitting contentions; LBP-10-16, 72 NRC 361 (2010)
the Commission applies this standard to review of decisions on evidentiary questions; CLI-10-18, 72 NRC 56 (2010)
the Commission generally defers to a board's rulings on standing in the absence of clear error or an abuse of discretion; CLI-10-17, 72 NRC 1 (2010); CLI-10-20, 72 NRC 185 (2010); CLI-10-21, 72 NRC 197 (2010)
ACCESS AUTHORIZATION
a person may be denied access at a licensee facility based on NRC requirements such as falsification of information, trustworthiness or reliability issues, and issues related to fitness for duty; DD-10-2, 72 NRC 163 (2010)
an individual requiring clarification or resolution of an access authorization concern must resolve the issue with the licensee where unescorted access was last held or otherwise denied; DD-10-2, 72 NRC 163 (2010)
each licensee must evaluate access denial status on a case-by-case basis and make a determination of trustworthiness and reliability; DD-10-2, 72 NRC 163 (2010)
nuclear industry was required to develop, implement, and maintain an industry database accessible by NRC-licensed facilities to share information, including determination of whether an individual is denied access at any other NRC-licensed facility; DD-10-2, 72 NRC 163 (2010)
potentially disqualifying information for unescorted access authorization may include unfavorable information from an employer, developed or disclosed criminal history, credit history, judgments, unfavorable reference information, evidence of drug or alcohol abuse, discrepancies between information disclosed and developed; DD-10-2, 72 NRC 163 (2010)
See also Controlled Access
ACCIDENTS, SEVERE
although "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated the terms clearly limit them to nuclear reactors and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 257 (2010)
applicant's environmental report for its license renewal application must include a severe accident mitigation alternatives analysis, outlining the costs and benefits of potential mitigation measures to reduce severe accident risk or consequences; CLI-10-30, 72 NRC 564 (2010)
petitioner has presented a prima facie showing for waiver of the NRC regulation covering the environmental impacts of spent fuel pool accidents generically, and has shown that its contention

concerning earthquake-induced spent fuel pool accidents is otherwise admissible; LBP-10-15, 72 NRC 257 (2010)
ADJUDICATORY PROCEEDINGS
challenges to the Waste Confidence Rule must be made in the context of a rulemaking, not in the context of an adjudicative proceeding; CLI-10-19, 72 NRC 98 (2010)
if petitioners or intervenors are dissatisfied with NRC's generic approach to a problem, their remedy lies in the rulemaking process, not in adjudication; CLI-10-19, 72 NRC 98 (2010)
no rule or regulation of the Commission concerning the licensing of production and utilization facilities is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; LBP-10-14, 72 NRC 101 (2010)
See also Combined License Proceedings; Decommissioning Proceedings; Enforcement Proceedings; Informal Hearings; Informal Proceedings; License Renewal Proceedings; Materials License Proceedings; NRC Proceedings
ADMINISTRATIVE PROCEDURE ACT
if a board does not explain how it had arrived at its findings of fact, it would fail to comply with its responsibilities under the Act to issue a reasoned decision; CLI-10-23, 72 NRC 210 (2010)
there is no absolute right to conduct cross-examination; LBP-10-15, 72 NRC 257 (2010)
AFFIDAVITS
a petition for rule waiver must be accompanied by an affidavit, but affiant need not be an expert; LBP-10-15, 72 NRC 257 (2010)
for factual disputes, petitioner need not proffer facts in formal affidavit or evidentiary form sufficient to withstand a summary disposition motion; LBP-10-24, 72 NRC 720 (2010)
motions to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for movant's claim that the criteria of section 2.326(a) have been satisfied, including addressing each of the reopening criteria separately with a specific explanation of why it has been met; LBP-10-19, 72 NRC 529 (2010); LBP-10-21, 72 NRC 616 (2010)
petitioner does not need to provide expert opinion or a substantive affidavit in order to satisfy 10 C.F.R. 2.309(f)(1)(v); LBP-10-15, 72 NRC 257 (2010)
AGING MANAGEMENT
a license renewal applicant seeking to satisfy aging management requirements by reliance on existing time-limited aging analyses in its current licensing basis would rely on 54.21(c)(1)(i) or (ii); CLI-10-17, 72 NRC 1 (2010)
a program for license renewal is intended to manage the effects of aging on a particular component by ensuring that the component does not exceed the design code limit; CLI-10-17, 72 NRC 1 (2010)
after issuance of a renewed license, licensee may demonstrate that its use of an aging management program identified in the GALL Report constitutes reasonable assurance that it will manage the targeted aging effect during the renewal period; CLI-10-17, 72 NRC 1 (2010)
applicant may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(ii) by showing that the cumulative usage factor calculations have been reevaluated based on an increased number of assumed transients to bound the period of extended operation and that the resulting CUF remains less than or equal to 1.0 for the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
for license renewal, feedwater, core spray, and reactor recirculation outlet nozzles, as part of the reactor coolant pressure boundary, must meet the metal-fatigue requirements for Class 1 components in section III of the ASME Code; CLI-10-17, 72 NRC 1 (2010)
if applicant can demonstrate by plant operating experience that the initially predicted number of stress cycles would not be exceeded even in the extended 20-year operating period, then 10 C.F.R. 54.21(c)(1)(i) would be satisfied; CLI-10-17, 72 NRC 1 (2010)
license renewal applicant who addresses the cumulative usage factor issue via an aging management program may reference Chapter X of the Generic Aging Lessons Learned Report; CLI-10-17, 72 NRC 1 (2010)
license renewal applicant who chooses to rely upon an existing time-limited aging analysis may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(i) by showing that the existing cumulative usage factor calculations remain valid because the number of assumed transients would not be exceeded during the period of extended operation; CLI-10-17, 72 NRC 1 (2010)

license renewal applications must include an evaluation of time-limited aging analyses demonstrating that the analyses will remain valid for the period of extended operation, have been projected to the end of the period of extended period of operation, or the effects of aging on the intended functions will be adequately managed for the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
licensee must comply with Part 50 regulations, including the provisions requiring compliance with the ASME Code, during the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
motion to reopen to introduce a new contention asserting issues related to aging management of effects of moist or wet environments on buried, below-grade, underground, or hard-to-access safety-related electrical cables is denied; LBP-10-19, 72 NRC 529 (2010)
review for operating license renewal addresses activities identified in 10 C.F.R. 54.21(a)(3) and (c)(1) regarding the integrated plant assessment; CLI-10-17, 72 NRC 1 (2010)
scope of a license renewal proceeding under 10 C.F.R. Part 54 encompasses a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to time-limited aging analyses; CLI-10-17, 72 NRC 1 (2010); LBP-10-21, 72 NRC 616 (2010)
section 54.29(a) speaks of both past and future actions, referring specifically to those that have been or will be taken with respect to managing the effects of aging and time-limited aging analyses; CLI-10-17, 72 NRC 1 (2010)
the aging management review for license renewal does not focus on all aging-related issues; CLI-10-27, 72 NRC 481 (2010)
the Generic Aging Lessons Learned Report sets forth three ways that a license renewal applicant proposing to use an aging management program may comply with the requirements of 10 C.F.R. 54.21(c)(1)(iii); CLI-10-17, 72 NRC 1 (2010)
the license renewal applicant's use of an aging management program identified in the Generic Aging Lessons Learned Report constitutes reasonable assurance that it will manage the targeted aging effect during the renewal period; CLI-10-17, 72 NRC 1 (2010)
the only safety issue where the regulatory process may not adequately maintain a plant's current licensing basis involves the potential detrimental effects of aging on the functionality of certain systems, structures, and components in the period of extended operations; CLI-10-27, 72 NRC 481 (2010)
the portion of the current licensing basis that can be affected by the detrimental effects of aging is limited to the design basis aspects of the CLB; LBP-10-15, 72 NRC 257 (2010)
the standard review plan presents one acceptable methodology for calculating the environmentally adjusted cumulative usage factor; CLI-10-17, 72 NRC 1 (2010)
AGREEMENTS
nondisparagement clauses in retention bonus agreements are common in employment agreements and NRC should not interfere with these agreements unless it finds such a clause violates 10 C.F.R. 50.7(f) or is applied in a fashion that prevents or retaliates against an employee for engaging in protected activities such as communicating with NRC; DD-10-1, 72 NRC 149 (2010)
ALARA
applicant must have a program to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable; LBP-10-20, 72 NRC 571 (2010)
DOE need not weigh ALARA considerations outside the geologic repository operations area for which it is responsible; LBP-10-22, 72 NRC 661 (2010)
each licensee must evaluate the extent of radiation hazards that may be present; DD-10-3, 72 NRC 171 (2010)
licensees, including Part 63 licensees, are required to use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable; LBP-10-22, 72 NRC 661 (2010)
petitioner alleges that routine unprotected handling of an unshielded neutron source by licensed operators and uncontrolled access by untrained and unlicensed facility visitors to this neutron source violated ALARA requirements; DD-10-3, 72 NRC 171 (2010)
ALARA PRINCIPLE
NRC regulations set a minimum standard for safety, not a maximum; LBP-10-22, 72 NRC 661 (2010)

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AMENDMENT
- license applications may be modified or improved during the NRC review process and changed may be significant; LBP-10-17, 72 NRC 501 (2010)

AMENDMENT OF CONTENTIONS
- for a contention of omission, if the information is later supplied by applicant or considered by Staff in a draft EIS, the contention is moot and intervenors must timely file a new or amended contention in order to raise specific challenges regarding the new information; LBP-10-14, 72 NRC 101 (2010)
- intervenor must comply with procedural requirements for the filing of new or amended contentions, including the requirement that the contentions be submitted in a timely fashion based on the availability of the subsequent information; LBP-10-17, 72 NRC 501 (2010)
- intervenors must move for leave to file a timely new or amended contention under 10 C.F.R. 2.309(c), (f)(2); LBP-10-14, 72 NRC 101 (2010)
- new or amended contentions filed after the initial deadline may be admitted with leave of the presiding officer upon a showing that information on which the contention is based was not previously available and is materially different than information previously available and the contention has been submitted in a timely fashion; LBP-10-14, 72 NRC 101 (2010)
- NRC regulations preserve the right to a hearing when an application is amended by allowing new or amended contentions to be filed in response to material new information; LBP-10-17, 72 NRC 501 (2010)
- once the deadline for filing an initial intervention petition has passed, a party wishing to submit new or amended contentions on matters not associated with issuance of the Staff's draft or final environmental impact statement must satisfy the requirements of 10 C.F.R. 2.309(f)(2); LBP-10-21, 72 NRC 616 (2010)

AMICUS CURIAE
- appellate briefs are welcomed from parties in other Commission adjudications that have presented similar issues; CLI-10-17, 72 NRC 1 (2010)
- NRC regulations contemplate briefs only after the Commission grants a petition for review, and do not provide for amicus briefs supporting or opposing petitions for review; CLI-10-17, 72 NRC 1 (2010)

APPEALS
- a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed de novo; CLI-10-24, 72 NRC 451 (2010)
- a successful challenge to a contention admissibility ruling must demonstrate that the ruling either constitutes clear error or reflects an abuse of discretion; CLI-10-17, 72 NRC 1 (2010)
- a winner cannot appeal a judgment; CLI-10-17, 72 NRC 1 (2010)
- an order denying a petition to intervene and/or request for hearing may be appealed to the Commission on the question of whether the petition and/or request should have been granted; CLI-10-20, 72 NRC 185 (2010)
- in the event of some 11th hour unforeseen development, a party may tender a document belatedly, but the tender must be accompanied by a motion for leave to file out-of-time that satisfactorily explains not only the reason for the lateness, but also why a motion for an extension of time could not have been seasonably submitted; CLI-10-26, 72 NRC 474 (2010)
- in the interest of efficient case management and prompt resolution of adjudications, the Commission has generally enforced the 10-day deadline for appeals strictly, excusing it only in unavoidable and extreme circumstances; CLI-10-26, 72 NRC 474 (2010)
- motions filed under 10 C.F.R. 2.323 are not a legitimate means to bring challenges to board decisions to the Commission; CLI-10-28, 72 NRC 553 (2010)
- NRC Staff is permitted an appeal as of right on the question of whether a request for access to sensitive unclassified nonsafeguards information should have been denied in whole or in part; CLI-10-24, 72 NRC 451 (2010)
- parties are expected to file motions for extensions of time so that they are received by NRC well before the time specified expires; CLI-10-26, 72 NRC 474 (2010)
- the fact that a party may have other obligations does not relieve that party of its hearing obligations; CLI-10-26, 72 NRC 474 (2010)
- the standard of review on appeal is abuse of discretion; CLI-10-24, 72 NRC 451 (2010)

unfamiliarity with NRC's Rules of Practice is not sufficient excuse for late filings, particularly where the order that is being challenged expressly advised petitioner of his appellate rights and of the time within which those rights had to be exercised; CLI-10-26, 72 NRC 474 (2010)
See also Briefs, Appellate
APPEALS, INTERLOCUTORY
although review is denied, the Commission exercises its inherent supervisory authority over adjudications to take sua sponte review of a board Order; CLI-10-27, 72 NRC 481 (2010)
because it disfavors piecemeal appeals, the Commission will grant interlocutory review only in extraordinary circumstances; CLI-10-29, 72 NRC 556 (2010)
deferral of review of board denial of rule waiver petition did not cause irreparable injury; CLI-10-29, 72 NRC 556 (2010)
imminent mootness of an issue has been cause for taking interlocutory review if the issue sought to be reviewed would have become moot by the time the board issued a final decision; CLI-10-29, 72 NRC 556 (2010)
it is within Commission discretion to grant interlocutory review; CLI-10-29, 72 NRC 556 (2010)
licensing board decisions denying a petition for waiver are interlocutory and not reviewable until the board has issued a final decision resolving the case, unless a party seeking review shows that one of the grounds for interlocutory review has been met; CLI-10-29, 72 NRC 556 (2010)
review at the end of the case would be meaningless because the Commission cannot later, on appeal from a final board decision, rectify an erroneous disclosure order; CLI-10-29, 72 NRC 556 (2010)
review is granted where the issues are significant, have potentially broad impact, and may well recur in the likely license renewal proceedings for other plants; CLI-10-27, 72 NRC 481 (2010)
showing necessary for grant of a petition for interlocutory review is described; CLI-10-29, 72 NRC 556 (2010)
the Commission may consider the criteria listed in 10 C.F.R. 2.786(b)(4) when reviewing interlocutory matters on the merits, but when determining whether to undertake such review the standards in section 2.786(g) control the determination; CLI-10-29, 72 NRC 556 (2010)
the question whether to hold an NRC enforcement proceeding in abeyance pending a related criminal prosecution is generally suitable for interlocutory Commission review because, unlike most interlocutory questions, the abeyance issue cannot await the end of the proceeding because it becomes moot; CLI-10-29, 72 NRC 556 (2010)
APPEALS, UNTIMELY
intervenor's appeal 3 days out of time was accepted when applicants' motion to strike failed to even hint at prejudice; LBP-10-21, 72 NRC 616 (2010)
the Commission elaborates on the standards for accepting an appeal filed out of time; LBP-10-21, 72 NRC 616 (2010)
APPELLATE BRIEFS
an appeal that merely recites earlier arguments without explaining how they demonstrate legal error or abuse of discretion on the board's part does not satisfy NRC pleading standards; CLI-10-21, 72 NRC 197 (2010)
appeals of partial initial decisions are not the proper procedural context in which to revise contentions; CLI-10-17, 72 NRC 1 (2010)
because appellant submitted no offer of proof, its case could be so weak that the denial of a right to reply by the licensing board would have been harmless error; CLI-10-23, 72 NRC 210 (2010)
cursory, unsupported arguments will not be considered; CLI-10-17, 72 NRC 1 (2010)
materiality is a requirement for any fact-based argument in a petition for review; CLI-10-17, 72 NRC 1 (2010)
mere demonstration that a board erred is not sufficient to warrant appellate relief, but rather the complaining party must demonstrate actual prejudice, i.e., that the ruling had a substantial effect on the outcome of the proceeding; CLI-10-23, 72 NRC 210 (2010)
parties taking appeals on purely procedural points are expected to explain precisely what injury to them was occasioned by the asserted error; CLI-10-23, 72 NRC 210 (2010)
petitions for review may not exceed 25 pages; CLI-10-17, 72 NRC 1 (2010)
the Commission disapproves of incorporation by reference in petitions for review, where it has the effect of bypassing the page limits set forth in NRC regulations; CLI-10-17, 72 NRC 1 (2010)

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APPELLATE REVIEW

absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting the contentions which a board never had the opportunity to consider; CLI-10-21, 72 NRC 197 (2010)

an abuse of discretion standard is applied to Commission review of decisions on evidentiary questions; CLI-10-18, 72 NRC 56 (2010)

Commission review is in the public interest if the decision could affect pending and future license renewal determinations; CLI-10-17, 72 NRC 1 (2010)

Commission will take early review as to matters involving novel legal or policy questions; CLI-10-24, 72 NRC 451 (2010)

discretionary Commission review of a presiding officer's initial decision is allowed under 10 C.F.R. 2.341(b)(1); CLI-10-17, 72 NRC 1 (2010)

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); CLI-10-18, 72 NRC 56 (2010)

if appellant had submitted an offer of proof, indicating what rebuttal evidence it would have offered to the board, then the Commission might have had some basis for determining whether that evidence would be substantial enough to justify a remand to the board; CLI-10-23, 72 NRC 210 (2010)

legal issues are reviewed de novo, but the Commission generally defers to board findings of fact, unless they are clearly erroneous; CLI-10-17, 72 NRC 1 (2010)

licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 210 (2010)

licensing boards have authority to regulate the course of proceedings, and the Commission generally defers to the boards on case management decisions; CLI-10-28, 72 NRC 553 (2010)

mere demonstration that a board erred is not sufficient to warrant appellate relief, but rather the complaining party must demonstrate actual prejudice, i.e., that the ruling had a substantial effect on the outcome of the proceeding; CLI-10-23, 72 NRC 210 (2010)

pendency of a petition for Commission review does not absolve petitioner of its duty to file a motion to reopen in a timely fashion; LBP-10-19, 72 NRC 529 (2010)

petition for review satisfies 10 C.F.R. 2.341(b)(4)(ii), (iii), and (v) of the standards for review because the challenged portions of the initial decision address significant issues of law and policy that lack governing precedent and raise issues that could affect other license renewal determinations; CLI-10-17, 72 NRC 1 (2010)

petitioner's argument regarding rejection of its contention satisfies the prejudicial procedural error standard for review; CLI-10-17, 72 NRC 1 (2010)

Staff's petition for review is granted on the grounds that Staff has demonstrated substantial questions as to the board's correct application of NEPA jurisprudence, and as to whether certain actions taken by the board constituted prejudicial procedural error; CLI-10-18, 72 NRC 56 (2010)

the Commission defers to a licensing board's rulings on contention admissibility unless an appeal points to an error of law or abuse of discretion; CLI-10-21, 72 NRC 197 (2010)

the Commission generally defers to a board's rulings on standing in the absence of clear error or an abuse of discretion; CLI-10-20, 72 NRC 185 (2010)

the Commission is loath to address complaints concerning a board's skepticism of expert witness's testimony, given that the Commission lacks the board's ability to observe the demeanor of the parties' expert witnesses in general and petitioner's witness in particular; CLI-10-17, 72 NRC 1 (2010)

the Commission may take discretionary review of a licensing board's initial decision; CLI-10-23, 72 NRC 210 (2010)

the Commission refrains from exercising its authority to make de novo findings of fact in situations where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-10-18, 72 NRC 56 (2010)

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-10-18, 72 NRC 56 (2010)

the Commission will consider a petition for review if it raises a substantial question with respect to one or more of the five paragraphs of 10 C.F.R. 2.341(b)(4); CLI-10-17, 72 NRC 1 (2010)

the Commission will not consider cursory, unsupported arguments; CLI-10-23, 72 NRC 210 (2010)

the Commission will not overturn a hearing judge's findings simply because the Commission might have reached a different result; CLI-10-23, 72 NRC 210 (2010)
the fact that the board accorded greater weight to one party's evidence than to the other's is not a basis for overturning the initial decision; CLI-10-23, 72 NRC 210 (2010)
the standard of clear error for overturning a board's factual findings is quite high; CLI-10-18, 72 NRC 56 (2010)
to satisfy the "clearly erroneous" standard, a litigant must show that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-17, 72 NRC 1 (2010); CLI-10-23, 72 NRC 210 (2010)
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when the Commission reviews board rulings on contention admissibility, it employs the clear error and abuse of discretion standards of review; CLI-10-17, 72 NRC 1 (2010)
whether collateral estoppel should be applied is a legal question that the Commission reviews de novo; CLI-10-23, 72 NRC 210 (2010)

APPLICANTS
although the contention admissibility rule imposes on a petitioner the burden of going forward with a sufficient factual basis, it does not shift the ultimate burden of proof from applicant to petitioner; LBP-10-24, 72 NRC 720 (2010)
although the duty to comply with NEPA falls upon the agency and not upon the applicant or licensee, the requirements of Part 51 must be met by the applicant; LBP-10-16, 72 NRC 361 (2010)
it is not the duty of applicant to consult with a tribe regarding cultural resources at a proposed site, but instead is the duty of the agency to initiate and follow through with the consultation process; LBP-10-16, 72 NRC 361 (2010)
See also Appeals

ARCHAEOLOGICAL RESOURCES PROTECTION ACT
criteria and procedures pursuant to which a federal land manager may issue excavation permits for federal lands are provided as well as notification to Indian tribes if permits may result in harm to cultural or religious sites; LBP-10-16, 72 NRC 361 (2010)

ASME CODE
a combined license application must include a description of the programs, and their implementation, necessary to ensure that the systems and components meet the requirements of the ASME Boiler and Pressure Vessel Code in accordance with 10 C.F.R. 50.55a; LBP-10-21, 72 NRC 616 (2010)
for license renewal, feedwater, core spray, and reactor recirculation outlet nozzles, as part of the reactor coolant pressure boundary, must meet the metal-fatigue requirements for Class 1 components in Section III of the Code; CLI-10-17, 72 NRC 1 (2010)
intervenors are precluded from challenging ASME inspection requirements in a combined license proceeding because NRC regulations directly incorporate ASME inspection requirements by reference; LBP-10-21, 72 NRC 616 (2010)
licensee must comply with Part 50 regulations, including the provisions requiring compliance with the ASME Code, during the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
the containment vessel is identified as an ASME Code Class MC component in both the inservice inspection subsection of section 50.55a as well as the inspection requirements subsection of the AP1000 DCD; LBP-10-21, 72 NRC 616 (2010)

ASSUMPTION OF RISK
the civil law concept requires not merely general knowledge of a risk but also that the risk assumed be specifically known, understood, and appreciated; CLI-10-23, 72 NRC 210 (2010)

ATOMIC ENERGY ACT
Congress considers the Atomic Safety and Licensing Board to be a panel of experts; CLI-10-17, 72 NRC 1 (2010)
NRC must provide a hearing upon the request of any person whose interest may be affected by the proceeding; LBP-10-16, 72 NRC 361 (2010); LBP-10-17, 72 NRC 501 (2010)

ATTORNEY CONDUCT
absent written consent of the party and the prior appearance of another attorney, many courts require that an attorney file a motion to withdraw; LBP-10-21, 72 NRC 616 (2010)

an attorney is not permitted to withdraw from representing a client unless withdrawal can be accomplished without material adverse effect to the client's interests; LBP-10-21, 72 NRC 616 (2010)
counsel's alleged unfamiliarity with the agency's rules of practice or counsel's asserted busy schedule are not satisfactory explanations for late filings; LBP-10-21, 72 NRC 616 (2010)
parties and their representatives are expected to conduct themselves as they should before a court of law; LBP-10-21, 72 NRC 616 (2010)
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NRC Staff could impose license conditions that are necessary to protect the environment under backfit procedures; CLI-10-30, 72 NRC 564 (2010)
BENEFIT-COST ANALYSIS
a SAMA analysis contention was found to be inadmissible because it lacked supporting information regarding the relative costs and benefits of the proposed alternative; LBP-10-15, 72 NRC 257 (2010)
contention is rejected as lacking support for the premise that ongoing mining operations will drain or contaminate wetlands, such that their economic benefits will be decreased; LBP-10-16, 72 NRC 361 (2010)
contention raising question of whether a quantitative as opposed to qualitative analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary is referred to the Commission as a novel issue; LBP-10-15, 72 NRC 257 (2010)
determination of economic benefits and costs that are tangential to environmental consequences are within a wide area of agency discretion; LBP-10-24, 72 NRC 720 (2010)
inherent in any forecast of future electric power demands is a substantial margin of uncertainty; LBP-10-24, 72 NRC 720 (2010)
licensing board may disapprove a site for a new reactor only upon one of two findings; LBP-10-24, 72 NRC 720 (2010)
purpose of the analysis called for by NEPA is to identify each significant environmental cost and to determine whether, all other factors considered, on balance the incurring of that cost is warranted; LBP-10-24, 72 NRC 720 (2010)
severe accident mitigation alternatives analyses are rooted in a cost-benefit assessment and the purpose of the assessment is to identify plant changes whose costs would be less than their benefit; LBP-10-14, 72 NRC 101 (2010)
the analysis involves the scrutiny of many factors, among them, offsetting benefits, available alternatives, and the possible means (and attendant costs) of reducing the environmental harm; LBP-10-24, 72 NRC 720 (2010)
the general rule applicable to cases involving differences or changes in demand forecasts is not whether applicant will need additional generating capacity but when; LBP-10-24, 72 NRC 720 (2010)
BIAS
a judge's use of strong language toward a party or in expressing his views on matters before him does not constitute evidence of personal bias; CLI-10-17, 72 NRC 1 (2010)
an agency official should be disqualified only when a disinterested observer may conclude that the official has in some measure adjudged the facts as well as the law of a particular case in advance of hearing it; CLI-10-17, 72 NRC 1 (2010)
extra-record conduct such as stares, glares, and scowls do not constitute evidence of personal bias, nor do occasional outbursts toward counsel; CLI-10-17, 72 NRC 1 (2010)
friction between the court and counsel, including intemperate and impatient remarks by the judge, does not constitute evidence of personal bias; CLI-10-17, 72 NRC 1 (2010)
mere experience or background in a relevant technical field does not imply knowledge of the specific disputed facts in a case; CLI-10-22, 72 NRC 202 (2010)
that an unreasonable person, focusing on only one aspect of the story, might perceive a risk of bias is irrelevant; CLI-10-22, 72 NRC 202 (2010)
the mere fact of adverse findings and rulings on the merits does not imply a biased attitude on the board's part; CLI-10-17, 72 NRC 1 (2010)
to prevail on a disqualification motion, petitioner first must demonstrate that the purported instances of bias had a substantial impact on the outcome of the proceeding; CLI-10-17, 72 NRC 1 (2010)

to prevail on a disqualification motion, petitioner must show either a bias against petitioner or its counsel based on matters outside the record or a pervasive bias against petitioner based upon matters in the record; CLI-10-17, 72 NRC 1 (2010)
BRIEFS, APPELLATE
amicus curiae briefs are welcomed from parties in other Commission adjudications that have presented similar issues; CLI-10-17, 72 NRC 1 (2010)
NRC regulations contemplate amicus curiae briefs only after the Commission grants a petition for review, and do not provide for amicus briefs supporting or opposing petitions for review; CLI-10-17, 72 NRC 1 (2010)
BURDEN OF PERSUASION
burden is on petitioner to allege a specific and plausible means by which contaminants from mining activities may adversely affect him or her; LBP-10-16, 72 NRC 361 (2010)
existence of a prima facie case is determined based on the sufficiency of the movant's assertions and informational/evidentiary support alone; LBP-10-15, 72 NRC 257 (2010)
in source materials cases, petitioner has the burden of showing a specific and plausible means by which the proposed license activities may affect him or her; LBP-10-16, 72 NRC 361 (2010)
prima facie case is defined as establishment of a legally required rebuttable presumption or a party's production of enough evidence to allow the fact-trier to infer the fact at issue and rule in the party's favor; LBP-10-15, 72 NRC 257 (2010)
BURDEN OF PROOF
a board's standing analysis must avoid the familiar trap of confusing the standing determination with the assessment of a petitioner's case on the merits; LBP-10-16, 72 NRC 361 (2010)
although the contention admissibility rule imposes on a petitioner the burden of going forward with a sufficient factual basis, it does not shift the ultimate burden of proof from applicant to petitioner; LBP-10-24, 72 NRC 720 (2010)
it is enough that petitioner has demonstrated a realistic threat of sustaining a direct injury as a result of contaminated groundwater flowing from the site to his property; LBP-10-16, 72 NRC 361 (2010)
petitioner, especially one represented by counsel, bears the burden of going forward and specifically addressing each of the six elements in 10 C.F.R. 2.309(f)(1); LBP-10-16, 72 NRC 361 (2010)
petitioner is not required to prove its case at the contention admission stage; LBP-10-24, 72 NRC 720 (2010)
petitioners are not required to demonstrate their asserted injury with certainty at the contention admission stage, or to provide extensive technical studies in support of their standing argument; LBP-10-16, 72 NRC 361 (2010)
summary disposition movant bears the burden of demonstrating that there is no genuine issue as to any material fact; LBP-10-20, 72 NRC 571 (2010)
BYPRODUCT MATERIALS
petitioner alleges release of controlled byproduct nuclear materials in containers not certified for transport of such materials on public roads and not labeled with the required labeling; DD-10-3, 72 NRC 171 (2010)
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motion to reopen to introduce a new contention asserting issues related to aging management of effects of moist or wet environments on buried, below-grade, underground, or hard-to-access safety-related electrical cables is denied; LBP-10-19, 72 NRC 529 (2010)
CASE MANAGEMENT
a spectrum of sanctions from minor to severe may be employed by a board to assist in the management of a proceeding; LBP-10-21, 72 NRC 616 (2010)
boards are authorized to hold prehearing conferences to simplify or clarify the issues for hearing, after which they may admit a revised contention, as long as the revised contention does not add material not raised by the intervenor to make it admissible; LBP-10-14, 72 NRC 101 (2010)
boards' case management decisions, such as determinations of whether to permit additional slide shows or enlarged exhibits, lie well within the discretion of the board; CLI-10-17, 72 NRC 1 (2010)
examples of sanctions include warning a party that offending conduct will not be tolerated in the future, refusing to consider a filing, denying the right to cross-examine or present evidence, dismissing

contentions, imposing sanctions on counsel, or dismissing the party from the proceeding; LBP-10-21, 72 NRC 616 (2010)
if no particular procedure is compelled, the board must exercise its discretion and select the hearing procedure most appropriate for the newly admitted contentions; LBP-10-15, 72 NRC 257 (2010)
in establishing and enforcing schedule deadlines, boards must take care not to compromise the Commission's fundamental commitment to a fair and thorough hearing process; LBP-10-21, 72 NRC 616 (2010)
in procedural and scheduling matters, where first-hand contact with and appreciation for all the circumstances surrounding a case are necessary, maximum reliance on the proper discretion of a presiding officer is essential; CLI-10-17, 72 NRC 1 (2010)
in the interest of efficient case management and prompt resolution of adjudications, the Commission has generally enforced the 10-day deadline for appeals strictly, excusing it only in unavoidable and extreme circumstances; CLI-10-26, 72 NRC 474 (2010)
licensing boards have authority to control the schedule for a proceeding to ensure that intervenors have adequate time to prepare new or amended contentions in response to new information; LBP-10-17, 72 NRC 501 (2010)
licensing boards have authority to regulate the course of proceedings, and the Commission generally defers to the boards on case management decisions; CLI-10-28, 72 NRC 553 (2010)
licensing boards have substantial authority to regulate hearing procedures; LBP-10-21, 72 NRC 616 (2010)
licensing boards have the authority to regulate hearing procedure, and decisions on evidentiary questions fall within that authority; CLI-10-18, 72 NRC 56 (2010)
licensing boards may reformulate contentions to eliminate extraneous issues or to consolidate issues for a more efficient proceeding; LBP-10-14, 72 NRC 101 (2010)
NRC's expanding adjudicatory docket makes it critically important that parties comply with NRC pleading requirements and that the board enforce those requirements; CLI-10-27, 72 NRC 481 (2010)
only in truly unavoidable and extreme circumstances are late filings to be accepted; LBP-10-21, 72 NRC 616 (2010)
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certain actions are designated as categorically excluded from the requirement to prepare an environmental assessment or an environmental impact statement; CLI-10-18, 72 NRC 56 (2010)
such actions do not individually or cumulatively have a significant effect on the human environment and thus neither an environmental assessment nor an environmental impact statement is required; CLI-10-18, 72 NRC 56 (2010)
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hydrofluoric acid exposure to licensee operators is assessed a civil monetary penalty in the amount of $32,500 on the basis of a determined Severity Level III violation; LBP-10-18, 72 NRC 519 (2010)
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the NEPA hard-look doctrine is subject to a rule of reason that the Commission has interpreted as obligating the agency to consider all reasonable alternatives to the proposed action; LBP-10-14, 72 NRC 101 (2010)
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the civil law concept of "assumption of risk" requires not merely general knowledge of a risk but also that the risk assumed be specifically known, understood, and appreciated; CLI-10-23, 72 NRC 210 (2010)
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a consulting tribe is entitled to a reasonable opportunity to identify its concerns about historic properties, to advise on the identification and evaluation of them (including those of traditional religious and cultural importance), to articulate its views on the undertaking's effects on such properties, and to participate in the resolution of adverse effects; LBP-10-16, 72 NRC 361 (2010)
a tribe may become a consulting party if its property, potentially affected by a federal undertaking, has religious or cultural significance; LBP-10-16, 72 NRC 361 (2010)
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body of the responsible tribe to be a consulting party and to concur in any agreement; LBP-10-16, 72 NRC 361 (2010)
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where the Commission found that the board did not provide clarity on the scope of admitted contentions, it exercised its authority to reformulate the contentions; CLI-10-18, 72 NRC 56 (2010)

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a SAMA analysis contention was found to be inadmissible because it lacked supporting information regarding the relative costs and benefits of that proposed alternative; LBP-10-15, 72 NRC 257 (2010)
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although a board may view petitioner's supporting information in a light favorable to the petitioner, petitioner (not the board) is required to supply all of the required elements for a valid intervention petition; LBP-10-15, 72 NRC 257 (2010); CLI-10-20, 72 NRC 185 (2010); LBP-10-16, 72 NRC 361 (2010)
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although the contention admissibility rule imposes on a petitioner the burden of going forward with a sufficient factual basis, it does not shift the ultimate burden of proof from applicant to petitioner; LBP-10-24, 72 NRC 720 (2010)
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contention is rejected as lacking support for the premise that ongoing mining operations will drain or contaminate wetlands, such that their economic benefits will be decreased; LBP-10-16, 72 NRC 361 (2010)
contention raising question of whether a quantitative as opposed to qualitative analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary is referred to the Commission as a novel issue; LBP-10-15, 72 NRC 257 (2010)
contentions may be amended or new contentions filed, with permission from the presiding officer, if petitioner shows that information on which the contention is based was not previously available and is materially different than information previously available and the contention has been submitted in a timely fashion based on the availability of the subsequent information; CLI-10-18, 72 NRC 56 (2010)
contentions must meet the six requirements of 10 C.F.R. 2.309(f)(1); LBP-10-14, 72 NRC 101 (2010)
contentions raising legal issues, like fact-based contentions, must fall within the allowable scope of the proceeding to be admissible; LBP-10-17, 72 NRC 501 (2010)
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-10-21, 72 NRC 616 (2010)
contentions that attack a Commission rule, or that seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, are inadmissible; LBP-10-21, 72 NRC 616 (2010)

contentions that challenge applicable statutory requirements or the basic structure of the agency's regulatory process are inadmissible; LBP-10-21, 72 NRC 616 (2010)
contentions that inappropriately focus on Staff's review of the application rather than on the errors and omissions in the application itself are inadmissible; CLI-10-27, 72 NRC 481 (2010)
contentions that raise issues of law as well as contentions that raise issues of fact are permitted; LBP-10-17, 72 NRC 501 (2010)
contentions that simply state the petitioner's views about what regulatory policy should be do not present a litigable issue; LBP-10-21, 72 NRC 616 (2010)
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even if a petitioner is unable to show that the NRC Staff's NEPA document differs significantly from the environmental report, it may still be able to meet the late-filed contention requirements; LBP-10-24, 72 NRC 720 (2010)
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for factual disputes, petitioner need not proffer facts in formal affidavit or evidentiary form sufficient to withstand a summary disposition motion; LBP-10-24, 72 NRC 720 (2010)
generalized claims that are vague and insufficiently supported and do not tend to establish any connection with the proposed license or potential harm to petitioner are insufficient to support a contention; CLI-10-20, 72 NRC 185 (2010)
given that consideration of terrorist attacks is part of the NRC's NEPA obligations in the Ninth Circuit, the issue of whether terrorist attacks have been fully considered in the NEPA analysis for a power plant in that jurisdiction is plainly material to the decision the NRC must make; LBP-10-15, 72 NRC 257 (2010)
good cause is the most significant of the late-filing factors set out in 10 C.F.R. 2.309(c); CLI-10-17, 72 NRC 1 (2010); LBP-10-24, 72 NRC 720 (2010)
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if good cause for a late filing is not shown, the board may still permit the late filing, but petitioner must make a strong showing on the other factors; LBP-10-24, 72 NRC 720 (2010)
if petitioner makes a prima facie allegation that the application omits information required by law, it 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-10-16, 72 NRC 361 (2010)
if the Commission were to permit fundamentally routine inspection findings and regulatory determinations to form the basis for safety culture contentions, this could lead to a never-ending stream of minitrials on operational issues, in which the applicant would be required to demonstrate how each issue was satisfactorily resolved; CLI-10-27, 72 NRC 481 (2010)
in addressing the section 2.309(c)(1) factors, failure to provide any specific discussion of most of these items or the weight they should be given in the balance is a potentially fatal omission; LBP-10-21, 72 NRC 616 (2010)
in making the findings required for issuance of a combined license, the Commission shall treat as resolved those matters resolved in connection with the issuance or renewal of a design certification rule; LBP-10-21, 72 NRC 616 (2010)
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it is a contention's proponent, not the licensing board, that is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for the admission of contentions; LBP-10-24, 72 NRC 720 (2010)
it is a settled rule of practice that contentions ought to be interpreted in light of the required specificity, so that adjudicators and parties need not search out broader meanings than were clearly intended; LBP-10-16, 72 NRC 361 (2010)
it is not the board's duty to forage through a petition in order to find statements or other support that may be located in various portions of the petition but not referenced in the contention; LBP-10-16, 72 NRC 361 (2010)
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listing of issues with which petitioners disagree with the application is a form of notice pleading that the Commission has long held is insufficient; LBP-10-16, 72 NRC 361 (2010)
litigant opposing a licensing action is entitled to challenge the sufficiency of any guidance document on which a licensee or applicant relies, but it must do so with substantive support; CLI-10-17, 72 NRC 1 (2010)
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motion to reopen to introduce a new contention asserting issues related to aging management of effects of moist or wet environments on buried, below-grade, underground, or hard-to-access safety-related electrical cables is denied; LBP-10-19, 72 NRC 529 (2010)
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need-for-power contention that calls for a more detailed analysis than NRC requires is inadmissible; LBP-10-24, 72 NRC 720 (2010)
new contentions based on assumptions that cannot be considered information that was not previously available or materially different than information previously available do not meet admissibility requirements; CLI-10-17, 72 NRC 1 (2010)
new or amended contentions filed after the initial deadline may be admitted with leave of the presiding officer upon a showing that information on which the contention is based was not previously available and is materially different than information previously available and the contention has been submitted in a timely fashion; LBP-10-14, 72 NRC 101 (2010)
no rule or regulation of the Commission concerning the licensing of production and utilization facilities is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; LBP-10-14, 72 NRC 101 (2010)
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once the deadline for filing an initial intervention petition has passed, a party wishing to submit new or amended contentions on matters not associated with issuance of the Staff's draft or final environmental impact statement must satisfy the requirements of 10 C.F.R. 2.309(f)(2); LBP-10-21, 72 NRC 616 (2010)
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petitioner raises a genuine dispute with the application with respect to the adequacy of information needed to characterize the site and offsite hydrogeology to ensure confinement of the extraction fluids; LBP-10-16, 72 NRC 361 (2010)
petitioner, especially one represented by counsel, bears the burden of going forward and specifically addressing each of the six elements in 10 C.F.R. 2.309(f)(1); LBP-10-16, 72 NRC 361 (2010)

petitioner's argument regarding rejection of its contention satisfies the prejudicial procedural error standard for review; CLI-10-17, 72 NRC 1 (2010)
petitioner's argument that high-explosive munitions could fall onto depleted uranium, pulverizing and igniting the DU and generating aerosols that might travel through the air, providing an inhalation pathway for offsite exposure was contradicted by the Army's statement that it does not use high-impact explosives in the area where DU is present; CLI-10-20, 72 NRC 185 (2010)
petitioner's assertion that terrorist-act-originated SAMA analysis is required by Ninth Circuit law satisfies the requirements of 10 C.F.R. 2.309(f)(1)(iii) that the issue be within the scope of a license renewal proceeding; LBP-10-15, 72 NRC 257 (2010)
petitioner's issue will be ruled inadmissible if petitioner has offered no tangible information, no experts, or no substantive affidavits; LBP-10-15, 72 NRC 257 (2010)
petitioners seeking to introduce new contentions after the board has denied their initial petition to intervene need to address the reopening standards; LBP-10-21, 72 NRC 616 (2010)
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 legally required missing information; LBP-10-16, 72 NRC 361 (2010)
proponent of a motion to reopen must do more than simply raise a safety issue, but rather must show that the safety issue it raises is significant; LBP-10-19, 72 NRC 529 (2010)
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; LBP-10-17, 72 NRC 501 (2010)
scope of a license renewal proceeding is limited to review of plant structures and components requiring an aging management review for the period of extended operation and to the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; LBP-10-21, 72 NRC 616 (2010)
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six basic requirements for an admissible contention can be summarized as specificity, brief explanation, within scope, materiality, concise statement of alleged facts or expert opinion, and genuine dispute; LBP-10-15, 72 NRC 257 (2010)
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Staff's propositions at the contention admission stage regarding what would effectively cure an omission from a license renewal application are matters for a merits decision, not for a determination of whether a contention of omission is admissible; LBP-10-15, 72 NRC 257 (2010)
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submission of a new contention within 30 days of the event giving rise to that contention is timely; LBP-10-17, 72 NRC 501 (2010)
sufficiency of an application is not a matter committed solely to the NRC Staff's discretion and thus is within the scope of an adjudicatory proceeding; LBP-10-17, 72 NRC 501 (2010)
the amended late-filed contentions rule, 10 C.F.R. 2.309(f)(2), is not intended to alter the standards in section 2.714(a) of its rules of practice as interpreted by NRC case law; LBP-10-17, 72 NRC 501 (2010)
the Commission addresses a certified question by a licensing board on the admissibility of proposed contentions involving the Waste Confidence Rule; CLI-10-19, 72 NRC 98 (2010)
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to the degree that the general precept that a rule, including a design certification, cannot be challenged in an adjudication might be seen as placing such matters outside the scope of the proceeding; LBP-10-21, 72 NRC 616 (2010)
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CROSS-EXAMINATION
a party seeking to conduct cross-examination must file a written motion and obtain leave of the board; LBP-10-15, 72 NRC 257 (2010)
APA § 556(d) is a liberal standard, but does not provide an absolute right to conduct cross-examination; LBP-10-15, 72 NRC 257 (2010)
cross-examination occurs virtually automatically in Subpart G hearings, subject to normal judicial management and the requirement to file a cross-examination plan; LBP-10-15, 72 NRC 257 (2010)
the standard for allowing the parties to conduct cross-examination is the same under Subparts G and L; LBP-10-15, 72 NRC 257 (2010)
CULTURAL RESOURCES
a party claiming violations of their procedural right to protect their interests in cultural resources is to be accorded a special status when it comes to standing without meeting all the normal standards for redressability and immediacy; LBP-10-16, 72 NRC 361 (2010)
an Indian Tribe claims a procedural interest in identifying, evaluating, and establishing protections for historic and cultural resources; LBP-10-16, 72 NRC 361 (2010)
criteria and procedures pursuant to which a federal land manager may issue excavation permits for federal lands are provided as well as notification to Indian tribes if permits may result in harm to cultural or religious sites; LBP-10-16, 72 NRC 361 (2010)
cultural and historical resources are to be considered as part of the environmental impact assessment that must be completed; LBP-10-16, 72 NRC 361 (2010)
it is not the duty of applicant to consult with a tribe regarding cultural resources at a proposed site, but instead is the duty of the agency to initiate and follow through with the consultation process; LBP-10-16, 72 NRC 361 (2010)
notification and inventory procedures are required so that Indian cultural objects and burial remains found on federal lands will be repatriated to the appropriate tribe; LBP-10-16, 72 NRC 361 (2010)
preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 361 (2010)
CULTURAL SENSITIVITY
federal agencies should be sensitive to the special concerns of Indian tribes in historic preservation issues, which often extend beyond Indian lands to other historic properties, and should invite the governing

body of the responsible tribe to be a consulting party and to concur in any agreement; LBP-10-16, 72 NRC 361 (2010)
CUMULATIVE USAGE FACTOR
a license renewal applicant who addresses the CUF issue via an aging management program may reference Chapter X of the Generic Aging Lessons Learned Report; CLI-10-17, 72 NRC 1 (2010)
an aging management program is intended to manage the effects of aging on a particular component by, e.g., ensuring that the fatigue usage factor for the component does not exceed the design code limit; CLI-10-17, 72 NRC 1 (2010)
applicant may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(ii) by showing that the CUF calculations have been reevaluated based on an increased number of assumed transients to bound the period of extended operation and that the resulting CUF remains less than or equal to 1.0 for the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
because environmentally adjusted CUFs are not contained in licensee's current licensing basis, they cannot be time-limited aging analyses and thereby a prerequisite to license renewal; CLI-10-17, 72 NRC 1 (2010)
license renewal applicant who chooses to rely upon an existing time-limited aging analysis may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(i) by showing that the existing CUF calculations remain valid because the number of assumed transients would not be exceeded during the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
metal fatigue that a particular component experiences during plant operation is quantified using this method; CLI-10-17, 72 NRC 1 (2010)
the standard review plan presents one acceptable methodology for calculating the environmentally adjusted cumulative usage factor; CLI-10-17, 72 NRC 1 (2010)
CURRENT LICENSING BASIS
a license renewal applicant seeking to satisfy aging management requirements by reliance upon existing time-limited aging analyses in its CLB would rely on 10 C.F.R. 54.21(c)(1)(i) or (ii); CLI-10-17, 72 NRC 1 (2010)
because environmentally adjusted cumulative usage factors are not contained in licensee's CLB, they cannot be time-limited aging analyses and thereby a prerequisite to license renewal; CLI-10-17, 72 NRC 1 (2010)
challenges to the CLB are outside the scope of a license renewal proceeding; LBP-10-15, 72 NRC 257 (2010)
the portion of the CLB that can be affected by the detrimental effects of aging is limited to the design bases aspects of the CLB; LBP-10-15, 72 NRC 257 (2010)
DEADLINES
a contention based on new information will be considered timely if it is filed within 30 days of the availability of the new information; CLI-10-18, 72 NRC 56 (2010); LBP-10-14, 72 NRC 101 (2010)
a filing that was 3 days late, which the board characterized as not excessively late, was accepted based on findings that intervenor offered a reasonable explanation for the delay and the delay did not prejudice any of the other parties; LBP-10-21, 72 NRC 616 (2010)
a party at risk of filing out of time can request an extension, doing so well before the time specified expires; LBP-10-21, 72 NRC 616 (2010)
although participants generally must comply with the schedule established by the presiding officer, they might sometimes be unable to meet established deadlines; LBP-10-21, 72 NRC 616 (2010)
counsel's alleged unfamiliarity with the agency's rules of practice or counsel's asserted busy schedule are not satisfactory explanations for late filings; LBP-10-21, 72 NRC 616 (2010)
in the event of some 11th-hour unforeseen development, a party may tender a document belatedly, but the tender must be accompanied by a motion for leave to file out-of-time which satisfactorily explains not only the reason for the lateness, but also why a motion for an extension of time could not have been seasonably submitted; CLI-10-26, 72 NRC 474 (2010)
in the interest of efficient case management and prompt resolution of adjudications, the Commission has generally enforced the 10-day deadline for appeals strictly, excusing it only in unavoidable and extreme circumstances; CLI-10-26, 72 NRC 474 (2010)
motions are to be filed within 10 days of the event or circumstance from which they arise; LBP-10-23, 72 NRC 692 (2010)

participant filing out of time must offer a satisfactory explanation for its lateness, including, if necessary, an account as to why a request for extension could not have been filed beforehand; LBP-10-21, 72 NRC 616 (2010)
parties are expected to file motions for extensions of time so that they are received by NRC well before the time specified expires; CLI-10-26, 72 NRC 474 (2010)
requests for an extension of time should generally be in writing and should be received by the board well before the time specified expires; LBP-10-21, 72 NRC 616 (2010)
strict enforcement of deadlines furthers the dual interests of efficient case management and prompt resolution of adjudications; LBP-10-21, 72 NRC 616 (2010)
submission of a new contention within 30 days of the event giving rise to that contention is timely; LBP-10-17, 72 NRC 501 (2010)
the fact that a party may have other obligations does not relieve that party of its hearing obligations; CLI-10-26, 72 NRC 474 (2010)
unfamiliarity with NRC's Rules of Practice is not sufficient excuse for late filings, particularly where the order that is being challenged expressly advised petitioner of his appellate rights and of the time within which those rights had to be exercised; CLI-10-26, 72 NRC 474 (2010)
unless a deadline has been specified in the scheduling order for the proceeding, the determination of timeliness is subject to a reasonableness standard that depends on the facts and circumstances of each situation; LBP-10-24, 72 NRC 720 (2010)
See also Extension of Time
DECOMMISSIONING FUNDING PLANS
a surety arrangement is necessary as a prerequisite to operating, not as a prerequisite to licensing; LBP-10-16, 72 NRC 361 (2010)
applicant must establish a surety arrangement that ensures sufficient funds will be available for decommissioning and decontamination of an NRC-licensed source materials site; LBP-10-16, 72 NRC 361 (2010)
surety arrangements are matters appropriately addressed after issuance of the license, and even after completion of a hearing; LBP-10-16, 72 NRC 361 (2010)
DECOMMISSIONING PROCEEDINGS
standing was found for an organization representing three members living in close proximity to a decommissioning site, who expressed concern that depleted uranium materials could affect a waterway abutting the property of two members; CLI-10-20, 72 NRC 185 (2010)
DEFINITIONS
"authority" is defined as a legal writing taken as definitive or decisive, especially a judicial or administrative decision cited as a precedent, or a source, such as a statute, case, or treatise, cited in support of a legal argument; LBP-10-21, 72 NRC 616 (2010)
"categorical exclusion" encompasses actions that do not individually or cumulatively have a significant effect on the human environment and therefore neither an environmental assessment nor an environmental impact statement is required; CLI-10-18, 72 NRC 56 (2010)
"details" has a pejorative connotation, i.e., that intervenors or the board are asking for minutiae or matters that relate to minute points, small and subordinate parts, or minor parts; LBP-10-20, 72 NRC 571 (2010)
"document" as used in 10 C.F.R. 2.336 includes computer models and associated electronic inputs, outputs, data, and software; LBP-10-23, 72 NRC 692 (2010)
"document" as used in 10 C.F.R. 2.336 is not limited to paper documents and it refers to information stored on any medium or form, including electronically stored information; LBP-10-23, 72 NRC 692 (2010)
in the absence of a statutory definition, courts normally define a term by its ordinary meaning; LBP-10-24, 72 NRC 720 (2010)
"injury in fact" is defined as an invasion of a legally protected interest that is concrete and particularized and actual or imminent rather than conjectural or hypothetical; LBP-10-16, 72 NRC 361 (2010)
"means" is defined; LBP-10-20, 72 NRC 571 (2010)
"member of the public" is any individual except when that individual is receiving an occupational dose; LBP-10-22, 72 NRC 661 (2010)
"potential party" is defined; CLI-10-24, 72 NRC 451 (2010); CLI-10-25, 72 NRC 469 (2010)

"prima facie" case is defined as establishment of a legally required rebuttable presumption or a party's production of enough evidence to allow the fact-trier to infer the fact at issue and rule in the party's favor; LBP-10-15, 72 NRC 257 (2010)
"prima facie" showing merely requires the presentation of enough information to allow a board to infer (absent disproof) that special circumstances exist to support a rule waiver; LBP-10-15, 72 NRC 257 (2010)
"relevant evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence; LBP-10-23, 72 NRC 692 (2010)
"significant" is ordinarily defined "having meaning," "full of import," "indicative," "having or likely to have influence or effect," "deserving to be considered; LBP-10-24, 72 NRC 720 (2010)
See also Construction of Meaning
DEMAND-SIDE MANAGEMENT
the National Environmental Policy Act's rule of reason excludes consideration of demand-side management if the proposed new plant is intended to be a merchant plant, selling power on the open market, because it is not feasible for licensee to engage in demand-side management; CLI-10-21, 72 NRC 197 (2010)
DEPLETED URANIUM
petitioner's argument that high-explosive munitions could fall onto DU, pulverizing and igniting the DU and generating aerosols that might travel through the air, providing an inhalation pathway for offsite exposure was contradicted by the Army's statement that it does not use high-impact explosives in the area where DU is present; CLI-10-20, 72 NRC 185 (2010)
DESIGN
before any waste may be received at the high-level waste repository, DOE must update its application with additional information, including, specifically, additional design data obtained during construction; LBP-10-22, 72 NRC 661 (2010)
NRC is given flexibility in determining how best to provide for the use of a system of multiple barriers in the design of the repository; LBP-10-22, 72 NRC 661 (2010)
NRC's licensing regulations must provide for the use of a system of multiple barriers in the design of the high-level waste repository; LBP-10-22, 72 NRC 661 (2010)
section 121 of the Nuclear Waste Policy Act does not require that each barrier provide either wholly independent protection or a specifically quantified amount of protection in the high-level waste repository; LBP-10-22, 72 NRC 661 (2010)
special attention must be given to those items that may significantly influence the final design of the high-level waste repository; LBP-10-22, 72 NRC 661 (2010)
DESIGN CERTIFICATION
a board could refer a contention relating to a certified design to the Staff for consideration in the design certification rulemaking and hold that contention in abeyance if the contention is otherwise admissible; LBP-10-21, 72 NRC 616 (2010)
applicant, at its own risk, may reference a pending design certification application in its combined license application; LBP-10-17, 72 NRC 501 (2010); LBP-10-20, 72 NRC 571 (2010)
challenges to an issue already addressed in the Final Safety Evaluation Report for the ABWR Design Control Document are closed to licensing boards as an impermissible attack on the ABWR certified design; LBP-10-14, 72 NRC 101 (2010)
in making the findings required for issuance of a combined license, the Commission shall treat as resolved those matters resolved in connection with the issuance or renewal of a design certification rule; LBP-10-21, 72 NRC 616 (2010)
the Commission generally refuses to modify, rescind, or impose new requirements on reactor design certification information, except through rulemaking; LBP-10-21, 72 NRC 616 (2010)
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; LBP-10-17, 72 NRC 501 (2010)

to the degree that the general precept that a rule, including a design certification, cannot be challenged in an adjudication might be seen as placing such matters outside the scope of the proceeding; LBP-10-21, 72 NRC 616 (2010)

DISCLOSURE

a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed de novo; CLI-10-24, 72 NRC 451 (2010)

a party is excused from producing a document if the document is publicly available and if the party specifies where the document may be found; LBP-10-23, 72 NRC 692 (2010)

a party may comply by merely providing a description by category and location of all documents subject to mandatory disclosure; LBP-10-23, 72 NRC 692 (2010)

although the phrase "possession, custody, or control" appears in 10 C.F.R. 2.336(a)(2)(i), 2.704(a)(2), and 2.707(a)(1)), no NRC decision has ever provided guidance as to what constitutes "control"; LBP-10-23, 72 NRC 692 (2010)

an appeal as of right by the NRC Staff is permitted on the question of whether a request for access to sensitive unclassified nonsafeguards information should have been denied in whole or in part; CLI-10-24, 72 NRC 451 (2010)

analysis of a motion to compel the mandatory disclosure of information under 10 C.F.R. 2.336(a) is contingent on six issues; LBP-10-23, 72 NRC 692 (2010)

applicant's "control" of computer models prepared by and in possession of a contractor is illustrated by the fact that if NRC Staff requested these documents, applicant could obtain and provide them; LBP-10-23, 72 NRC 692 (2010)

applicant's claim that computer models should be excused from the mandatory disclosure requirements because they entail proprietary information is rejected; LBP-10-23, 72 NRC 692 (2010)

availability, not possession, custody, or control, is the criterion for the NRC Staff's mandatory disclosure responsibilities; LBP-10-23, 72 NRC 692 (2010)

because of the security-related SUNSI categorization of a Staff guidance document used to assess an application's compliance with NRC rules, the Staff would not have to produce the document but would be required to identify the document as part of its continuing duty of disclosure; CLI-10-24, 72 NRC 451 (2010)

documents are deemed to be within the control of a party if the party has the right to obtain the documents on demand or if it is held by the party's attorney, expert, insurance company, accountant, or agent; LBP-10-23, 72 NRC 692 (2010)

each party to a proceeding must automatically disclose and provide all documents and data compilations in their possession, custody, or control that are relevant to the admitted contentions, without waiting for a party to file a discovery request; LBP-10-23, 72 NRC 692 (2010)

if a requested document or data compilation is publicly available, then a citation to the document and a description of where it may be publicly obtained are sufficient; LBP-10-23, 72 NRC 692 (2010)

if the burden or expense of the proposed discovery outweighs its likely benefit, disclosure is not required; LBP-10-23, 72 NRC 692 (2010)

in its supervisory capacity, the Commission provides guidance on the "need for SUNSI" analysis, for use in those instances when an access order applies; CLI-10-24, 72 NRC 451 (2010)

mandatory disclosure is the only form of discovery allowed in Subpart L proceedings, and all other forms are expressly prohibited; LBP-10-23, 72 NRC 692 (2010)

neither legal ownership nor title is required in order for a party to have "possession, custody, or control" of a document; LBP-10-23, 72 NRC 692 (2010)

once a petition to intervene has been granted, issues involving access to documents for use in the proceeding are governed by NRC discovery rules; CLI-10-24, 72 NRC 451 (2010)

petitioners or intervenors may request and, where appropriate, obtain, under protective order or other measures, information withheld from the general public for proprietary or security reasons; CLI-10-24, 72 NRC 451 (2010)

protective orders and in camera proceedings are the customary and favored means of handling disputes that arise in which one party to a proceeding seeks purportedly proprietary information from another; CLI-10-24, 72 NRC 451 (2010)

"relevant evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence; LBP-10-23, 72 NRC 692 (2010)
Staff's disclosure obligations are not tied to the admitted contentions, but rather, it must make available documents that relate to the application and its review as a whole; CLI-10-24, 72 NRC 451 (2010); CLI-10-25, 72 NRC 469 (2010)
the board grants intervenors' motion to compel disclosure of certain groundwater modeling information associated with a combined license application; LBP-10-23, 72 NRC 692 (2010)
the concept of control extends to situations in which the party has the practical ability to obtain materials in the possession of another, even if the party does not have the legal right to compel the other person or entity to produce the requested materials; LBP-10-23, 72 NRC 692 (2010)
the disclosing party can either provide the other parties with an actual copy of the document or data compilation or can simply describe it and provide it if the other party requests it; LBP-10-23, 72 NRC 692 (2010)
the relevance standard of 10 C.F.R. 2.336 is more flexible than the relevance standard of Fed. R. Evid. 401; LBP-10-23, 72 NRC 692 (2010)
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the showing required for "need" for SUNSI could include, but does not require (nor is it limited to), an explanation that the information will be used as support for a contention; CLI-10-24, 72 NRC 451 (2010)
the term "document" as used in 10 C.F.R. 2.336 includes computer models and associated electronic inputs, outputs, data, and software; LBP-10-23, 72 NRC 692 (2010)
the use of any proprietary information that is produced is strictly limited to the proceeding for which it is produced, and such information must be promptly returned at the close of this proceeding; LBP-10-23, 72 NRC 692 (2010)
to rule that disclosure under 10 C.F.R. 2.336(a)(2)(i) is limited to formal contractual deliverables would encourage applicants to draft consulting contracts to insulate themselves from the obligation to disclose critical computer modeling information; LBP-10-23, 72 NRC 692 (2010)
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each party to a proceeding must automatically disclose and provide all documents and data compilations in their possession, custody, or control that are relevant to the admitted contentions, without waiting for a party to file a discovery request; LBP-10-23, 72 NRC 692 (2010)
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it is not a ground for objection to discovery that the information sought will be inadmissible at the hearing if the information sought appears reasonably calculated to lead to the discovery of admissible evidence; LBP-10-23, 72 NRC 692 (2010)
mandatory disclosure is the only form of discovery allowed in Subpart L proceedings, and all other forms are expressly prohibited; LBP-10-23, 72 NRC 692 (2010)
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the "need for SUNSI" inquiry is essentially a relevance inquiry just as a federal court litigant must show that information sought in discovery is relevant to its claims or defenses; CLI-10-24, 72 NRC 451 (2010)
the disclosing party can either provide the other parties with an actual copy of the document or data compilation or can simply describe it and provide it if the other party requests it; LBP-10-23, 72 NRC 692 (2010)
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availability, not possession, custody, or control, is the criterion for the NRC Staff's mandatory disclosure responsibilities; LBP-10-23, 72 NRC 692 (2010)
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if and when NRC Staff relies on a document, then the Staff itself is also obliged to disclose the document, to the extent it is available; LBP-10-23, 72 NRC 692 (2010)
Staff's disclosure obligations are not tied to the admitted contentions, but rather, it must make available documents that relate to the application and its review as a whole; CLI-10-24, 72 NRC 451 (2010); CLI-10-25, 72 NRC 469 (2010)
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an agency official should be disqualified only where a disinterested observer may conclude that the official has in some measure adjudged the facts as well as the law of a particular case in advance of hearing it; CLI-10-17, 72 NRC 1 (2010)
if a licensing board member declines to grant a party's recusal motion, the motion is referred to the Commission to determine the sufficiency of the grounds alleged; CLI-10-22, 72 NRC 202 (2010)
that an unreasonable person, focusing on only one aspect of the story, might perceive a risk of bias is irrelevant; CLI-10-22, 72 NRC 202 (2010)
the Commission does not use procedural technicalities to avoid addressing disqualification motions; CLI-10-17, 72 NRC 1 (2010)
the disqualification standard under 28 U.S.C. § 455 is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification under 10 C.F.R. 2.313, and it provides a helpful framework for such an assessment; CLI-10-22, 72 NRC 202 (2010)
the mere fact of adverse findings and rulings on the merits does not imply a biased attitude on the board's part; CLI-10-17, 72 NRC 1 (2010)
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a party is excused from producing a document if the document is publicly available and if the party specifies where the document may be found; LBP-10-23, 72 NRC 692 (2010)
applicant's "control" of computer models prepared by and in possession of a contractor is illustrated by the fact that if NRC Staff requested these documents, applicant could obtain and provide them; LBP-10-23, 72 NRC 692 (2010)
applicant's claim that computer models should be excused from the mandatory disclosure requirements because they entail proprietary information is rejected; LBP-10-23, 72 NRC 692 (2010)

documents are deemed to be within the control of a party if the party has the right to obtain the documents on demand or if it is held by the party's attorney, expert, insurance company, accountant, or agent; LBP-10-23, 72 NRC 692 (2010)
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to rule that disclosure under 10 C.F.R. 2.336(a)(2)(i) is limited to formal contractual deliverables would encourage applicants to draft consulting contracts to insulate themselves from the obligation to disclose critical computer modeling information; LBP-10-23, 72 NRC 692 (2010)
when determining relevance of documents for discovery purposes in NRC proceedings, boards may look to the Federal Rules of Evidence for useful guidance; LBP-10-23, 72 NRC 692 (2010)

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ENFORCEMENT ACTIONS
a board did not commit clear error in finding that an enforcement action target did not know certain facts despite Staff's showing that the target was on the recipient list of documents and e-mails that included those facts; CLI-10-23, 72 NRC 210 (2010)
based on results of its problem identification and resolution biennial team inspections with annual followup of selected issues at licensed facilities, NRC takes any appropriate enforcement action to ensure compliance with 10 C.F.R. Part 50, Appendix B, Criterion XVI; DD-10-1, 72 NRC 149 (2010)
hydrofluoric acid exposure to licensee operators is assessed a civil monetary penalty in the amount of $32,500 on the basis of a determined Severity Level III violation; LBP-10-18, 72 NRC 519 (2010)
ENFORCEMENT PROCEEDINGS
board's finding that "knowledge" does not necessarily follow simply from previous exposure to individual facts, but rather an individual must have a current appreciation of those facts and their meaning in the circumstances presented is a finding of fact, not of law; CLI-10-23, 72 NRC 210 (2010)
knowledge of a fact requires not only an awareness of that fact but also an understanding or recognition of its significance; CLI-10-23, 72 NRC 210 (2010)
once a licensing proceeding has been closed, petitioners will still have the opportunity to raise issues by filing a request for action under 10 C.F.R. 2.206; CLI-10-17, 72 NRC 1 (2010)
ENVIRONMENTAL ASSESSMENT
although the discussion of alternatives in the environmental assessment need only be brief, it must be sufficient to fully comply with the requirement to study, develop, and describe appropriate alternatives; CLI-10-18, 72 NRC 56 (2010)
as long as all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated, the regulatory requirement is satisfied; CLI-10-18, 72 NRC 56 (2010)
certain actions are designated as categorically excluded from the requirement to prepare an environmental assessment or an environmental impact statement; CLI-10-18, 72 NRC 56 (2010)
content of an EA for proposed actions is described; CLI-10-18, 72 NRC 56 (2010)
cultural and historic resources are to be considered as part of the environmental impacts assessment that must be completed; LBP-10-16, 72 NRC 361 (2010)
federal agencies are required, to the fullest extent possible, to include in every recommendation or report on proposals for major federal actions significantly affecting the quality of the human environment a detailed statement on the environmental impact of the proposed action; CLI-10-18, 72 NRC 56 (2010)
general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided; CLI-10-18, 72 NRC 56 (2010)
it is not enough to consider only the proposed action and the no-action alternative in an EA; CLI-10-18, 72 NRC 56 (2010)

licensing boards do not sit to flyspeck environmental documents or to add details or nuances; LBP-10-14, 72 NRC 101 (2010)
NEPA does not require the NRC to assess the potential health effects of consuming irradiated food; CLI-10-18, 72 NRC 56 (2010)
NRC must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decisionmaking process; CLI-10-18, 72 NRC 56 (2010)
one purpose of an EA is to facilitate preparation of an environmental impact statement when one is necessary; CLI-10-18, 72 NRC 56 (2010)
Staff's failure to disclose data underlying its terrorism analysis in the final environmental assessment failed to meet the NEPA-mandated hard-look standard; CLI-10-18, 72 NRC 56 (2010)
Staff's obligations for preparation of an EA are discussed; CLI-10-18, 72 NRC 56 (2010)
the alternatives provision of NEPA § 102(2)(E) applies both when an agency prepares an environmental impact statement and when it prepares an environmental assessment; CLI-10-18, 72 NRC 56 (2010)
the obligation of agencies to consider alternatives is a lesser one under an environmental assessment than under an environmental impact statement; CLI-10-18, 72 NRC 56 (2010)
the range of alternatives that must be considered need not extend beyond those reasonably related to the purposes of the project and a rule of reason necessarily informs that choice; CLI-10-18, 72 NRC 56 (2010)
there is no per se regulatory bar that precludes the Staff from using the hearing process to clarify the administrative record supporting its final EA, and that record, along with any adjudicatory decision, becomes, in effect, part of the final environmental document; CLI-10-18, 72 NRC 56 (2010)
ENVIRONMENTAL EFFECTS
even if offsite construction does not appear to be part of the plan, it does not follow that offsite consequences need not be considered; CLI-10-18, 72 NRC 56 (2010)
impacts that are reasonably foreseeable under NEPA must be analyzed publicly, even if their probability of occurrence is low; CLI-10-18, 72 NRC 56 (2010)
impacts that are remote and speculative or inconsequentially small need not be examined; LBP-10-14, 72 NRC 101 (2010)
indirect effects are distinguished from connected actions under 40 C.F.R. 1508.25(a)(1); CLI-10-18, 72 NRC 56 (2010)
the central purpose of Part 51 rules is to allow NRC to comply with NEPA by identifying and evaluating environmental impacts that are generic to reactor license renewal proceedings and then allowing applicant and NRC to dispense with site-specific evaluations of such environmental impacts in situations covered by the generic analysis; LBP-10-15, 72 NRC 257 (2010)
the duty under NEPA to consider the environmental impacts of a proposed action incorporates, at least implicitly, considerations of the probability of a particular consequence occurring; LBP-10-15, 72 NRC 257 (2010)
the plain language of 10 C.F.R. 63.305 does not say anything about analyzing future climate based upon the historical geological record; LBP-10-22, 72 NRC 661 (2010)
ENVIRONMENTAL IMPACT STATEMENT
a contention may challenge a draft EIS even though its ultimate conclusion on a particular issue is the same as that in the ER, as long as the DEIS relies on significantly different data than the environmental report to support the determination; LBP-10-24, 72 NRC 720 (2010)
a detailed statement of reasonable alternatives to a proposed action must be included; LBP-10-24, 72 NRC 720 (2010)
a tribe is free to file a contention later on in the proceeding if, after Staff releases its environmental documents, the tribe believes that the Staff has failed to satisfy its obligations under NEPA and the National Historic Preservation Act; LBP-10-16, 72 NRC 361 (2010)
alternatives analysis is the heart of the EIS; LBP-10-24, 72 NRC 720 (2010)
an agency's consideration of alternatives is sufficient if it considers an appropriate range of alternatives, even if it does not consider every available alternative; LBP-10-24, 72 NRC 720 (2010)
an EIS is not intended to be a research document; CLI-10-22, 72 NRC 202 (2010)
certain actions are designated as categorically excluded from the requirement to prepare an environmental assessment or an environmental impact statement; CLI-10-18, 72 NRC 56 (2010)

compliance with NEPA requires that, if new and significant information arises after the date of the issuance of the EIS and before the agency decision, then the agency must supplement or revise its EIS and consider such information; LBP-10-15, 72 NRC 257 (2010)
documents must be written in plain language so that decisionmakers and the public can readily understand them; LBP-10-16, 72 NRC 361 (2010)
existence of reasonable but unexamined alternatives renders an EIS inadequate; LBP-10-24, 72 NRC 720 (2010)
federal agencies are required, to the fullest extent possible, to include in every recommendation or report on proposals for major federal actions significantly affecting the quality of the human environment a detailed statement on the environmental impact of the proposed action; CLI-10-18, 72 NRC 56 (2010)
if significant new information becomes available, NRC Staff must explain how it took the new information into account in determining whether the additional generating capacity is required; LBP-10-24, 72 NRC 720 (2010)
inaccurate, incomplete, or misleading information in an EIS concerning the comparison of alternatives is itself sufficient to render the EIS unlawful and to compel its revision; LBP-10-24, 72 NRC 720 (2010)
it is the NRC Staff, not the intervenors, that has the burden of complying with NEPA; LBP-10-24, 72 NRC 720 (2010)
licensing boards do not sit to flyspeck environmental documents or to add details or nuances; LBP-10-14, 72 NRC 101 (2010)
NEPA requires federal agencies to consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives; LBP-10-24, 72 NRC 720 (2010)
petitioner may amend contentions based on the applicant's environmental report or file new contentions if there are data or conclusions in the NRC draft or final EIS, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents; LBP-10-24, 72 NRC 720 (2010)
purpose of the cost-benefit analysis called for by NEPA is to identify each significant environmental cost and to determine whether, all other factors considered, on balance the incurring of that cost is warranted; LBP-10-24, 72 NRC 720 (2010)
someone living adjacent to the site for proposed construction of a federally licensed facility has standing to challenge the licensing agency's failure to prepare an EIS, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the facility will not be completed for many years; LBP-10-24, 72 NRC 720 (2010)
the alternatives provision of NEPA § 102(2)(E) applies both when an agency prepares an EIS and when it prepares an environmental assessment; CLI-10-18, 72 NRC 56 (2010)
the cost-benefit analysis involves the scrutiny of many factors, among them, offsetting benefits, available alternatives, and the possible means (and attendant costs) of reducing the environmental harm; LBP-10-24, 72 NRC 720 (2010)
the NEPA requirement to prepare an EIS is a procedural mechanism designed to ensure that agencies give proper consideration to the environmental consequences of their actions; LBP-10-24, 72 NRC 720 (2010)
the obligation of agencies to consider alternatives is a lesser one under an environmental assessment than under an environmental impact statement; CLI-10-18, 72 NRC 56 (2010)
under NEPA, the NRC must balance the benefits of the project against its environmental costs; LBP-10-24, 72 NRC 720 (2010)
use of the disjunctive phrase "data *or* conclusions" means that it is sufficient that either data or conclusions in the draft EIS differ significantly from those in the environmental report; LBP-10-24, 72 NRC 720 (2010)
whether and how the Staff fulfills its National Historic Preservation Act and NEPA obligations are issues that could form the basis of a new contention; LBP-10-16, 72 NRC 361 (2010)
See also Draft Environmental Impact Statement; Generic Environmental Impact Statement
ENVIRONMENTAL REPORT
a contention may challenge a draft environmental impact statement even though its ultimate conclusion on a particular issue is the same as that in the ER, as long as the DEIS relies on significantly different data than the ER to support the determination; LBP-10-24, 72 NRC 720 (2010)

although the obligations under NEPA fall to the agency and therefore the NRC Staff, petitioners are required to raise environmental objections based on the applicant's ER; LBP-10-15, 72 NRC 257 (2010)
analysis must consider and balance 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; LBP-10-16, 72 NRC 361 (2010)
applicant's license renewal application must include a severe accident mitigation alternatives analysis, outlining the costs and benefits of potential mitigation measures to reduce severe accident risk or consequences; CLI-10-30, 72 NRC 564 (2010)
challenge to the technical adequacy of baseline water quality data and adequate confinement of the host aquifer in applicant's ER is admissible; LBP-10-16, 72 NRC 361 (2010)
contention that the ER is based on incomplete information because a new earthquake fault has been discovered within 600 meters of nuclear reactors and the results of studies concerning the new fault will be available in the near term is admissible; LBP-10-15, 72 NRC 257 (2010)
documents must be written in plain language so that decisionmakers and the public can readily understand them; LBP-10-16, 72 NRC 361 (2010)
license renewal applications must include a severe accident mitigation alternatives analysis if not previously considered by NRC Staff; LBP-10-15, 72 NRC 257 (2010)
licensing boards do not sit to flyspeck environmental documents or to add details or nuances; LBP-10-14, 72 NRC 101 (2010)
on issues arising under the National Environmental Policy Act, petitioner shall file contentions based on the applicant's ER; LBP-10-24, 72 NRC 720 (2010)
petitioner may amend contentions based on the applicant's environmental report or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents; LBP-10-24, 72 NRC 720 (2010)
the Clean Water Act does not authorize regulation of discharges to groundwater and so applicant's ER must address those discharges to groundwater; LBP-10-14, 72 NRC 101 (2010)
use of the disjunctive phrase "data *or* conclusions" means that it is sufficient that either data or conclusions in the draft environmental impact statement differ significantly from those in the ER; LBP-10-24, 72 NRC 720 (2010)
ENVIRONMENTAL REVIEW
NEPA review in the license renewal process is unlike the Commission's Part 54 review because the NEPA review covers all environmental impacts associated with license renewal and is not limited to aging-related issues; LBP-10-15, 72 NRC 257 (2010)
EROSION
the board may not consider that long-term erosion might entirely eliminate the proposed repository's upper geologic barrier unless the erosion is also shown to be a safety concern in the relatively near term; LBP-10-22, 72 NRC 661 (2010)
ERROR
a board did not commit clear error in finding that an enforcement action target did not know certain facts despite Staff's showing that the target was the recipient on a list of documents and e-mails that included those facts; CLI-10-23, 72 NRC 210 (2010)
a licensing board erred in holding that it lacked authority to consider contentions based on recent revisions to a license application, but the error was harmless because the intervenor had never submitted any contentions on the revisions; CLI-10-23, 72 NRC 210 (2010)
because appellant submitted no offer of proof, its case could be so weak that the denial of a right to reply by the licensing board would have been harmless error; CLI-10-23, 72 NRC 210 (2010)
mere demonstration that a board erred is not sufficient to warrant appellate relief, but rather the complaining party must demonstrate actual prejudice, i.e., that the ruling had a substantial effect on the outcome of the proceeding; CLI-10-23, 72 NRC 210 (2010)
parties taking appeals on purely procedural points are expected to explain precisely what injury to them was occasioned by the asserted error; CLI-10-23, 72 NRC 210 (2010)
petitioner's argument regarding rejection of its contention satisfies the prejudicial procedural error standard for review; CLI-10-17, 72 NRC 1 (2010)

Staff's petition for review is granted on the grounds that Staff has demonstrated substantial questions as to the Board's correct application of NEPA jurisprudence, and as to whether certain actions taken by the board constituted prejudicial procedural error; CLI-10-18, 72 NRC 56 (2010)
the Commission defers to a licensing board's rulings on contention admissibility unless an appeal points to an error of law or abuse of discretion; CLI-10-21, 72 NRC 197 (2010)
the Commission generally defers to a board's rulings on standing in the absence of clear error or an abuse of discretion; CLI-10-20, 72 NRC 185 (2010)
the fact that the board accorded greater weight to one party's evidence than to the other's is not a basis for overturning the initial decision; CLI-10-23, 72 NRC 210 (2010)
the mere potential for legal error in a contention admissibility decision is not a ground for interlocutory review; CLI-10-30, 72 NRC 564 (2010)
the standard of clear error for overturning a board's factual findings is quite high; CLI-10-18, 72 NRC 56 (2010)
to show clear error, appellant must demonstrate that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-23, 72 NRC 210 (2010)
when the Commission reviews board rulings on contention admissibility, it employs the clear error and abuse of discretion standards of review; CLI-10-17, 72 NRC 1 (2010)
ETHICAL ISSUES
absent written consent of the party and the prior appearance of another attorney, many courts require that an attorney file a motion to withdraw; LBP-10-21, 72 NRC 616 (2010)
EVIDENCE
if appellant had submitted an offer of proof, indicating what rebuttal evidence it would have offered to the board, then the Commission might have some basis for determining whether that evidence would be substantial enough to justify a remand to the board; CLI-10-23, 72 NRC 210 (2010)
plaintiff may prove his case by direct or circumstantial evidence; CLI-10-23, 72 NRC 210 (2010)
the court draws no distinction between the probative value of direct and circumstantial evidence; CLI-10-23, 72 NRC 210 (2010)
the scope of discovery is broader than the scope of admissible evidence; LBP-10-23, 72 NRC 692 (2010)
EXTENSION OF TIME
a motion to file late should generally be denied, except under extraordinary conditions; LBP-10-21, 72 NRC 616 (2010)
a party at risk of filing out of time can request an extension, doing so well before the time specified expires; LBP-10-21, 72 NRC 616 (2010)
counsel's alleged unfamiliarity with the agency's rules of practice or counsel's asserted busy schedule are not satisfactory explanations for late filings; LBP-10-21, 72 NRC 616 (2010)
in the event of some 11th-hour unforeseen development, a party may tender a document belatedly, but the tender must be accompanied by a motion for leave to file out-of-time which satisfactorily explains not only the reason for the lateness, but also why a motion for an extension of time could not have been seasonably submitted; CLI-10-26, 72 NRC 474 (2010)
participant filing out of time must offer a satisfactory explanation for its lateness, including, if necessary, an account as to why a request for extension could not have been filed beforehand; LBP-10-21, 72 NRC 616 (2010)
parties are expected to file motions for extensions of time so that they are received by NRC well before the time specified expires; CLI-10-26, 72 NRC 474 (2010); LBP-10-21, 72 NRC 616 (2010)
See also Deadlines
FAIRNESS
in establishing and enforcing schedule deadlines, boards must take care not to compromise the Commission's fundamental commitment to a fair and thorough hearing process; LBP-10-21, 72 NRC 616 (2010)
the Commission has long endorsed a balanced approach to hearings that both expedites the hearing process and ensures fairness in order to produce a record that leads to high-quality decisions that adequately protect the public health and safety, the common defense and security, and the environment; LBP-10-21, 72 NRC 616 (2010)

FAULTS
contention that the environmental report is based on incomplete information because a new earthquake fault has been discovered within 600 meters of nuclear reactors and the results of studies concerning the new fault will be available in the near term is admissible; LBP-10-15, 72 NRC 257 (2010)
FEDERAL RULES OF CIVIL PROCEDURE
neither legal ownership nor title is required in order for a party to have "possession, custody, or control" of a document; LBP-10-23, 72 NRC 692 (2010)
NRC generally applies the same standard for summary disposition that federal courts apply when ruling on motions for summary judgment under Fed. R. Civ. P. 56; LBP-10-20, 72 NRC 571 (2010)
NRC's production-of-documents regulation, 10 C.F.R. 2.707(a)(1) is essentially the same as Fed. R. Civ. P. 34(a)(1); LBP-10-23, 72 NRC 692 (2010)
the phrase "possession, custody, or control" as found in the Federal Rules of Civil Procedure and 10 C.F.R. 2.336(a) is in the disjunctive, and thus only one of the enumerated requirements needs to be met; LBP-10-23, 72 NRC 692 (2010)
the rules were amended in 2006 to expressly include electronically stored information; LBP-10-23, 72 NRC 692 (2010)
FEDERAL RULES OF EVIDENCE
"relevant evidence" means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence; LBP-10-23, 72 NRC 692 (2010)
the relevance standard of 10 C.F.R. 2.336 is more flexible than the relevance standard of Fed. R. Evid. 401; LBP-10-23, 72 NRC 692 (2010)
when determining relevance of documents for discovery purposes in NRC proceedings, boards may look to the FRE for useful guidance; LBP-10-23, 72 NRC 692 (2010)
when the Commission endorsed the use of the Federal Rules of Evidence as guidance for the boards, it did so with the express proviso that boards must apply the Part 2 rules with *greater flexibility* than the FRE; LBP-10-23, 72 NRC 692 (2010)
FINAL ENVIRONMENTAL IMPACT STATEMENT
if NRC Staff concludes that the legal threshold for new and significant information has been met, it is authorized to supplement the FEIS; CLI-10-29, 72 NRC 556 (2010)
FINAL SAFETY ANALYSIS REPORT
the final safety analysis report shall include a level of information sufficient to enable the Commission to reach a final conclusion on all safety matters that must be resolved by the Commission before issuance of a combined license; LBP-10-20, 72 NRC 571 (2010)
the FSAR must include the kinds and quantities of radioactive materials expected to be produced by low-level radioactive waste 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; LBP-10-20, 72 NRC 571 (2010)
the FSAR was configured to accommodate at least 10 years of onsite storage; LBP-10-20, 72 NRC 571 (2010)
the function of 10 C.F.R. 50.59 is to deal with changes to a nuclear power plant, and it requires, as a prerequisite to any such change, that the licensee perform safety analyses in addition to those contained in the FSAR; LBP-10-20, 72 NRC 571 (2010)
there is no requirement in section 52.79(a)(3) for applicant's FSAR to include details regarding building materials and high-integrity containers, exact location, or health impacts on employees for the contingent onsite long-term LLRW storage facility; LBP-10-20, 72 NRC 571 (2010)
topics that must be covered in the FSAR and the level of information that is sufficient for each topic are specified in 10 C.F.R. 52.79; LBP-10-20, 72 NRC 571 (2010)
FINALITY
once a board has admitted original contentions, conducted the evidentiary hearing, and issued its ruling on the merits, and after the parties have appealed that decision, and the Commission has rendered its decision on the merits of the matter, the adjudicatory proceeding should be over, absent some extenuating circumstances; LBP-10-19, 72 NRC 529 (2010)

SUBJECT INDEX

FINDINGS OF FACT
- a board rested its findings regarding a contention, in part, on certain facts that it officially noticed; CLI-10-17, 72 NRC 1 (2010)
- a board's findings regarding a particular witness's knowledge or state of mind depend, as a general rule, largely on that witness's credibility; CLI-10-23, 72 NRC 210 (2010)
- board's finding that "knowledge" does not necessarily follow simply from previous exposure to individual facts, but rather an individual must have a current appreciation of those facts and their meaning in the circumstances presented is a finding of fact, not of law; CLI-10-23, 72 NRC 210 (2010)
- if a board does not explain how it had arrived at its findings of fact, it would fail to comply with its responsibilities under the Administrative Procedure Act to issue a reasoned decision; CLI-10-23, 72 NRC 210 (2010)
- licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 210 (2010)
- the Commission refrains from exercising its authority to make de novo findings of fact in situations where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-10-18, 72 NRC 56 (2010)
- the Commission will not overturn a hearing judge's findings simply because the Commission might have reached a different result; CLI-10-23, 72 NRC 210 (2010)
- to show clear error, appellant must demonstrate that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-23, 72 NRC 210 (2010)

FITNESS-FOR-DUTY PROGRAM
- a person may be denied access at a licensee facility based on NRC requirements such as falsification of information, trustworthiness or reliability issues, and issues related to fitness for duty; DD-10-2, 72 NRC 163 (2010)
- an individual requiring clarification or resolution of an access authorization concern must resolve the issue with the licensee where unescorted access was last held or otherwise denied; DD-10-2, 72 NRC 163 (2010)
- each licensee must evaluate access denial status on a case-by-case basis and make a determination of trustworthiness and reliability; DD-10-2, 72 NRC 163 (2010)
- nuclear industry was required to develop, implement, and maintain an industry database accessible by NRC-licensed facilities to share information, including determination of whether an individual is denied access at any other NRC-licensed facility; DD-10-2, 72 NRC 163 (2010)
- potentially disqualifying information for unescorted access authorization may include unfavorable information from an employer, developed or disclosed criminal history, credit history, judgments, unfavorable reference information, evidence of drug or alcohol abuse, discrepancies between information disclosed and developed; DD-10-2, 72 NRC 163 (2010)

GENERIC ENVIRONMENTAL IMPACT STATEMENT
- the GEIS must be updated if new and significant information or changed circumstances would change the outcome of the environmental analysis; LBP-10-15, 72 NRC 257 (2010)

GENERIC ISSUES
- spent fuel from an additional 20 years of operation can be stored safely, with small environmental effects, at all plants, and such impacts are classified as Category 1 issues that are not within the scope of individual license renewal proceedings; LBP-10-15, 72 NRC 257 (2010)
- the central purpose of Part 51 rules is to allow NRC to comply with NEPA by identifying and evaluating environmental impacts that are generic to reactor license renewal proceedings and then allowing applicant and NRC to dispense with site-specific evaluations of such environmental impacts in situations covered by the generic analysis; LBP-10-15, 72 NRC 257 (2010)
- threat of terrorist attack at spent fuel pools has been evaluated generically by NRC and special circumstances for rule waiver have not been shown; LBP-10-15, 72 NRC 257 (2010)

GEOLOGIC CONDITIONS
- the plain language of 10 C.F.R. 63.305 does not say anything about analyzing future climate based upon the historical geological record; LBP-10-22, 72 NRC 661 (2010)

SUBJECT INDEX

GEOLOGIC REPOSITORIES
the board may not consider that long-term erosion might entirely eliminate the proposed repository's upper geologic barrier unless the erosion is also shown to be a safety concern in the relatively near term; LBP-10-22, 72 NRC 661 (2010)
GROUNDWATER CONTAMINATION
it is enough that petitioner has demonstrated a realistic threat of sustaining a direct injury as a result of contaminated groundwater flowing from the site to his property; LBP-10-16, 72 NRC 361 (2010)
the Clean Water Act does not authorize regulation of discharges to groundwater and so applicant's environmental report must address those discharges; LBP-10-14, 72 NRC 101 (2010)
HAZARDOUS MATERIALS
hydrofluoric acid exposure to licensee operators is assessed a civil monetary penalty in the amount of $32,500 on the basis of a determined Severity Level III violation; LBP-10-18, 72 NRC 519 (2010)
HEARING PROCEDURES
if a contention does not fall within one of the categories of 10 C.F.R. 2.310(b)-(h), then proceedings may be conducted under Subpart L; LBP-10-15, 72 NRC 257 (2010)
if a hearing on a contention is expected to take no more than 2 days to complete, the board can impose the Subpart N procedures for expedited proceedings with oral hearings specified by 10 C.F.R. 2.1400-1407; LBP-10-16, 72 NRC 361 (2010)
if no particular procedure is compelled, the board must exercise its discretion and select the hearing procedure most appropriate for the newly admitted contentions; LBP-10-15, 72 NRC 257 (2010)
selection of hearing procedures for contentions at the outset of a proceeding is not immutable because the availability of Subpart G procedures depends critically on whether the credibility of eyewitnesses is important in resolving a contention, and witnesses relevant to each contention are not identified until after contentions are admitted; LBP-10-16, 72 NRC 361 (2010)
the board determines which procedure to use on a contention-by-contention basis; LBP-10-15, 72 NRC 257 (2010)
the Commission has long endorsed a balanced approach to hearings that both expedites the hearing process and ensures fairness in order to produce a record that leads to high-quality decisions that adequately protect the public health and safety, the common defense and security, and the environment; LBP-10-21, 72 NRC 616 (2010)
the Commission regards good sense, judgment, and managerial skills as the proper guideposts for conducting an efficient hearing; LBP-10-21, 72 NRC 616 (2010)
upon admission of a contention, the board must identify the specific hearing procedures to be used; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
HEARING REQUESTS, LATE-FILED
boards must balance eight factors in evaluating nontimely intervention petitions, hearing requests, and contentions; LBP-10-24, 72 NRC 720 (2010)
HEARING RIGHTS
a hearing in a licensing proceeding will be provided upon the request of any person whose interest may be affected by the proceeding; LBP-10-17, 72 NRC 501 (2010)
NRC regulations preserve the right to a hearing when an application is amended by allowing new or amended contentions to be filed in response to material new information; LBP-10-17, 72 NRC 501 (2010)
HIGH-LEVEL WASTE REPOSITORY
a quality assurance program is required to provide adequate confidence that the geologic repository and it structures, systems, or components will perform satisfactorily in service; LBP-10-22, 72 NRC 661 (2010)
adequate confidence in the performance assessment is derived from sufficient analyses, data, and the technical basis offered to demonstrate compliance with postclosure performance objectives; LBP-10-22, 72 NRC 661 (2010)
analysis is required of only those features, events, and processes that cannot be excluded on the basis of low probability of occurrence and whose exclusion would result in a significant change in the results of the performance assessment in the first 10,000-year period; LBP-10-22, 72 NRC 661 (2010)
applicant may perform its climate change analysis using a specified percolation rate; LBP-10-22, 72 NRC 661 (2010)

applicant's climate change analysis for the 990,000-year period may be limited to the effects of increased water flow through the repository as a result of climate change; LBP-10-22, 72 NRC 661 (2010)
because there is no requirement to demonstrate quantitatively the independent contribution of the drip shields, DOE need not perform a barrier neutralization analysis to ascertain each individual barrier's contribution to the repository's multiple barrier system; LBP-10-22, 72 NRC 661 (2010)
before authorizing construction of the proposed repository, the Commission must determine that there is reasonable expectation that the materials can be disposed of without unreasonable risk to the health and safety of the public; LBP-10-22, 72 NRC 661 (2010)
before issuing a license to receive and possess high-level waste at the repository, the Commission must find that construction of any underground storage space required for initial operation has been substantially completed; LBP-10-22, 72 NRC 661 (2010)
climate projections should be based on cautious, but reasonable assumptions; LBP-10-22, 72 NRC 661 (2010)
DOE may elect to use the method specified in 10 C.F.R. 63.342(c)(2) to analyze the effects of climate change during the post-10,000-year period, regardless of whether it is required to analyze the effects of climate change during the initial 10,000-year period; LBP-10-22, 72 NRC 661 (2010)
DOE must assess the effects of climate change during the 990,000-year period regardless of whether it necessarily must assess climate change during the initial 10,000-year period under the criteria set forth in sections 63.342(a) and (b); LBP-10-22, 72 NRC 661 (2010)
DOE need not weigh ALARA considerations outside the geologic repository operations area for which it is responsible; LBP-10-22, 72 NRC 661 (2010)
if the performance margins analysis is needed to establish adequate confidence in the total system performance assessment, then it is subject to the quality assurance requirements of 10 C.F.R. 63.142; LBP-10-22, 72 NRC 661 (2010)
licensees, including Part 63 licensees, are required to use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable; LBP-10-22, 72 NRC 661 (2010)
no requirement for a quantitative evaluation of an individual barrier's capabilities appears in the statutory language of the Nuclear Waste Policy Act; LBP-10-22, 72 NRC 661 (2010)
NRC is given flexibility in determining how best to provide for the use of a system of multiple barriers in the design of the repository; LBP-10-22, 72 NRC 661 (2010)
NRC's licensing regulations must provide for the use of a system of multiple barriers in the design of the repository; LBP-10-22, 72 NRC 661 (2010)
only features, events, and processes that produce significant changes in releases or doses within the first 10,000 years after disposal must be included in performance assessments; LBP-10-22, 72 NRC 661 (2010)
section 121 of the Nuclear Waste Policy Act does not require that each barrier provide either wholly independent protection or a specifically quantified amount of protection; LBP-10-22, 72 NRC 661 (2010)
the effects of the quality assurance program can be taken into account in determining the probability and consequences of a feature, event, or process; LBP-10-22, 72 NRC 661 (2010)
the performance margins analysis cannot be used to validate or provide confidence in the total systems performance assessment if its data and models are not qualified under DOE's quality assurance program; LBP-10-22, 72 NRC 661 (2010)
the plain language of 10 C.F.R. 63.305 does not say anything about analyzing future climate based upon the historical geological record; LBP-10-22, 72 NRC 661 (2010)
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section 63.21(a) requires only that the application must be as complete as possible in light of the information that is reasonably available at the time of docketing; LBP-10-22, 72 NRC 661 (2010)
section 63.21(c)(7) requires that the license application include a description of plans for retrieval and alternate storage of the radioactive wastes, should retrieval be necessary; LBP-10-22, 72 NRC 661 (2010)
special attention must be given to those items that may significantly influence the final design; LBP-10-22, 72 NRC 661 (2010)
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cultural and historic resources are to be considered as part of the environmental impact assessment that must be completed; LBP-10-16, 72 NRC 361 (2010)
federal agencies must follow notification and consultation procedures prior to a federal undertaking to consider the undertaking's effect on historic properties; LBP-10-16, 72 NRC 361 (2010)
federal agencies should be sensitive to the special concerns of Indian tribes in historic preservation issues, which often extend beyond Indian lands to other historic properties, and should invite the governing body of the responsible tribe to be a consulting party and to concur in any agreement; LBP-10-16, 72 NRC 361 (2010)
prior to issuance of any license, federal agencies must take into account the effect of the federal action on any area eligible for inclusion in the National Register of Historic Places; LBP-10-16, 72 NRC 361 (2010)
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the standard for disqualification of a judge under 28 U.S.C. § 455 is whether a reasonable person who knows all the circumstances would harbor doubts about the judge's impartiality; CLI-10-22, 72 NRC 202 (2010)
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although Part 40 generally applies to in situ leach mining, Appendix A to Part 40, including Criterion 1, was designed to address the problems related to mill tailings and not problems related to injection mining; LBP-10-16, 72 NRC 361 (2010)
applicant must establish a surety arrangement that ensures sufficient funds will be available for decommissioning and decontamination of an NRC-licensed source materials site; LBP-10-16, 72 NRC 361 (2010)
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byproduct material from in situ extraction operations must be disposed of at existing large mill tailings disposal sites; LBP-10-16, 72 NRC 361 (2010)
contention is rejected as lacking support for the premise that ongoing mining operations will drain or contaminate wetlands, such that their economic benefits will be decreased; LBP-10-16, 72 NRC 361 (2010)
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the Commission disapproves of incorporation by reference in petitions for review, where it has the effect of bypassing the page limits set forth in NRC regulations; CLI-10-17, 72 NRC 1 (2010)

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as NRC hearings have moved away from the traditional trial-type adversarial format and toward a more informal model, the inquisitorial role of the presiding officer necessarily has increased; CLI-10-17, 72 NRC 1 (2010)
the informal procedural rules of Part 2, Subpart L place greater emphasis and responsibility on the presiding officer to oversee the development of a full and complete record; CLI-10-17, 72 NRC 1 (2010)
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petitioner's argument that high-explosive munitions could fall onto depleted uranium, pulverizing and igniting the DU and generating aerosols that might travel through the air, providing an inhalation pathway for offsite exposure was contradicted by the Army's statement that it does not use high-impact explosives in the area where DU is present; CLI-10-20, 72 NRC 185 (2010)
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the Commission may take discretionary review of a licensing board's initial decision; CLI-10-23, 72 NRC 210 (2010)
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an injury in fact must go beyond generalized grievances to affect a petitioner in a personal and individual way; LBP-10-16, 72 NRC 361 (2010)
injury in fact is defined as an invasion of a legally protected interest that is concrete and particularized and actual or imminent rather than conjectural or hypothetical; LBP-10-16, 72 NRC 361 (2010)
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petitioner's claimed injury must be arguably within the zone of interests protected by the governing statute in the proceeding; LBP-10-16, 72 NRC 361 (2010)
standing generally has been denied when the threat of injury is not concrete and particularized; LBP-10-16, 72 NRC 361 (2010)
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to assert an appropriate injury for organizational standing, an organization must demonstrate a palpable injury in fact to its organizational interests; LBP-10-16, 72 NRC 361 (2010)
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applicant may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(ii) by showing that the cumulative usage factor calculations have been reevaluated based on an increased number of assumed transients to bound the period of extended operation and that the resulting CUF remains less than or equal to 1.0 for the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
applicant seeking to satisfy aging management requirements by reliance upon existing time-limited aging analyses in its current licensing basis would rely on 10 C.F.R. 54.21(c)(1)(i) or (ii); CLI-10-17, 72 NRC 1 (2010)
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applicant who chooses to rely upon an existing time-limited aging analysis may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(i) by showing that the existing cumulative usage factor calculations remain valid because the number of assumed transients would not be exceeded during the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
applicant's environmental report must include a severe accident mitigation alternatives analysis, outlining the costs and benefits of potential mitigation measures to reduce severe accident risk or consequences; CLI-10-30, 72 NRC 564 (2010); LBP-10-15, 72 NRC 257 (2010)
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if applicant can demonstrate by plant operating experience that the initially predicted number of stress cycles would not be exceeded even in the extended 20-year operating period, then 10 C.F.R. 54.21(c)(1)(i) would be satisfied; CLI-10-17, 72 NRC 1 (2010)
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petitioner's request for action concerning deficiencies in licensee's employee concerns program is denied; DD-10-1, 72 NRC 149 (2010)
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MANAGEMENT CHARACTER AND COMPETENCE
absence of perfect compliance by licensee does not rebut the presumption of compliance or support admission of a contention that the application does not satisfy 10 C.F.R. 54.29(a), but a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment will; LBP-10-15, 72 NRC 257 (2010)
allegation of facts, with supporting documentation, of a longstanding and continuing pattern of noncompliance or management difficulties that are reasonably linked to whether licensee will actually be able to adequately manage aging in accordance with the current licensing basis during the period of extended operation can be an admissible contention; LBP-10-15, 72 NRC 257 (2010)
NRC is not barred from considering licensee's past and continuing managerial and performance problems when it determines whether licensee has demonstrated that actions will be taken to manage the effects of aging during the period of extended operation; LBP-10-15, 72 NRC 257 (2010)
potential scope of adjudicatory hearings in license renewal proceedings is the same as the scope of the Staff's review; LBP-10-15, 72 NRC 257 (2010)
MATERIAL CONTROL AND ACCOUNTING
petitioner alleges release of controlled byproduct nuclear materials in containers not certified for transport of such materials on public roads and not labeled with the required labeling; DD-10-3, 72 NRC 171 (2010)

SUBJECT INDEX

MATERIAL FALSE STATEMENTS
- a false statement charge, like a perjury charge, effectively demands an inquiry into defendant's state of mind and intent to deceive at the time the testimony was given; CLI-10-23, 72 NRC 210 (2010)
- board's finding that "knowledge" does not necessarily follow simply from previous exposure to individual facts, but rather an individual must have a current appreciation of those facts and their meaning in the circumstances presented, is a finding of fact, not of law; CLI-10-23, 72 NRC 210 (2010)
- concerning criminal guilt, the words "knowledge" and "knowingly" are normally associated with awareness, understanding, or consciousness; CLI-10-23, 72 NRC 210 (2010)
- knowledge of a fact requires not only an awareness of that fact but also an understanding or recognition of its significance; CLI-10-23, 72 NRC 210 (2010)
- licensee employees may not deliberately submit to the NRC information that the employee knows to be incomplete or inaccurate in some respect material to the NRC; CLI-10-23, 72 NRC 210 (2010)
- materially false, fictitious, or fraudulent statements or representations are prohibited in matters within the federal government's jurisdiction; CLI-10-23, 72 NRC 210 (2010)
- materially incorrect responses to the NRC's communications are violations; CLI-10-23, 72 NRC 210 (2010)
- some circumstances surrounding a person's false statement may be so obvious that knowledge of its character may be fairly attributed to him; CLI-10-23, 72 NRC 210 (2010)
- the sole issue under 10 C.F.R. 50.5(a)(2) is whether a person knew the information was materially incomplete and inaccurate at the time it was submitted to the NRC; CLI-10-23, 72 NRC 210 (2010)
- to convict a person accused of making a false statement, the government must prove not only that the statement was false, but that the accused knew it to be false; CLI-10-23, 72 NRC 210 (2010)
- willfulness means nothing more in the context of a false statement than that the defendant knew that his statement was false when he made it or consciously disregarded or averted his eyes from its likely falsity; CLI-10-23, 72 NRC 210 (2010)

MATERIALITY
- a dispute is not material unless it involves a significant inaccuracy or omission and resolution of the dispute could affect the outcome of the licensing proceeding; LBP-10-14, 72 NRC 101 (2010)
- accuracy and reliability of the agency's need-for-power determination, as reflected in the draft EIS, is material to the licensing decision; LBP-10-24, 72 NRC 720 (2010)
- adequacy of the draft environmental impact statement's evaluation of alternatives is a material issue in the licensing proceeding; LBP-10-24, 72 NRC 720 (2010)
- any fact-based argument in a petition for review must satisfy the materiality requirement; CLI-10-17, 72 NRC 1 (2010)
- applicant's change of reactor design constitutes new and materially different information for the purposes of filing a new contention; LBP-10-17, 72 NRC 501 (2010)
- at the contention admissibility stage, intervenors are not required to run a sensitivity analysis and/or to prove that alleged defects would change the result; LBP-10-14, 72 NRC 101 (2010)
- cost-risk calculations that intervenors propose in their contention as they relate to existing reactors are not material to the findings that NRC must make to license the proposed reactors; LBP-10-14, 72 NRC 101 (2010)
- given that consideration of terrorist attacks is part of the NRC's NEPA obligations in the Ninth Circuit, the issue of whether terrorist attacks have been fully considered in the NEPA analysis for a power plant in that jurisdiction is plainly material to the decision the NRC must make; LBP-10-15, 72 NRC 257 (2010)
- if petitioner makes a prima facie allegation that the application omits information required by law, it necessarily presents a genuine dispute with applicant on a material issue in compliance and raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance; LBP-10-16, 72 NRC 361 (2010)
- petitioner need not submit a sensitivity analysis in order to establish that a SAMA-related contention is material; LBP-10-15, 72 NRC 257 (2010)
- subject matter of a contention must impact the grant or denial of the pending license application; LBP-10-17, 72 NRC 501 (2010)

SUBJECT INDEX

MATERIALS LICENSE APPLICATIONS
the organization or format of an application is not germane to license issuance because the objection to the application's organization is not an objection to the licensing action at issue in the proceeding; LBP-10-16, 72 NRC 361 (2010)
MATERIALS LICENSE PROCEEDINGS
boards apply a proximity-plus test to establish standing in materials cases, where the petitioner must show that the proposed licensing action involves a significant source of radiation that has an obvious potential for offsite consequences; CLI-10-20, 72 NRC 185 (2010)
no proximity presumption applies in source materials cases; LBP-10-16, 72 NRC 361 (2010)
standing was found for an organization representing three members living in close proximity to decommissioning site, who expressed concern that depleted uranium materials could affect a waterway abutting the property of two members; CLI-10-20, 72 NRC 185 (2010)
to establish standing, petitioner must show more than that he lives or works within a certain distance of the site where materials will be located; CLI-10-20, 72 NRC 185 (2010)
MATERIALS LICENSES
a categorical exclusion exists for materials licenses associated with irradiators; CLI-10-18, 72 NRC 56 (2010)
before issuing a license to receive and possess high-level waste at the repository, the Commission must find that construction of any underground storage space required for initial operation has been substantially completed; LBP-10-22, 72 NRC 661 (2010)
NRC Staff is required under NEPA to evaluate reasonable technological and geographical alternatives to a proposed irradiator; CLI-10-18, 72 NRC 56 (2010)
project goals are to be determined by the applicant, not the agency; CLI-10-18, 72 NRC 56 (2010)
METAL FATIGUE
a license renewal applicant who addresses the cumulative usage factor issue via an aging management program may reference Chapter X of the Generic Aging Lessons Learned Report; CLI-10-17, 72 NRC 1 (2010)
an aging management program is intended to manage the effects of aging on a particular component by, e.g., ensuring that the fatigue usage factor for the component does not exceed the design code limit; CLI-10-17, 72 NRC 1 (2010)
applicant may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(ii) by showing that the cumulative usage factor calculations have been reevaluated based on an increased number of assumed transients to bound the period of extended operation and that the resulting CUF remains less than or equal to 1.0 for the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
cumulative use factor is a means of quantifying the fatigue that a particular metal component experiences during plant operation; CLI-10-17, 72 NRC 1 (2010)
for any material, there is a characteristic number of stress cycles that it can withstand at a particular applied stress level before fatigue failure occurs; CLI-10-17, 72 NRC 1 (2010)
for license renewal, feedwater, core spray, and reactor recirculation outlet nozzles, as part of the reactor coolant pressure boundary, must meet the metal-fatigue requirements for Class 1 components in Section III of the ASME Code; CLI-10-17, 72 NRC 1 (2010)
if applicant can demonstrate by plant operating experience that the initially predicted number of stress cycles would not be exceeded even in the extended 20-year operating period, then 10 C.F.R. 54.21(c)(1)(i) would be satisfied; CLI-10-17, 72 NRC 1 (2010)
MONITORING
NRC continually takes measures to include the monitoring of safety culture in its oversight programs and internal management processes; CLI-10-27, 72 NRC 481 (2010)
preconstruction monitoring and testing to establish background information is exempted from the prohibition on commencement of construction; LBP-10-16, 72 NRC 361 (2010)
MOOTNESS
a contention challenging applicant's environmental report can be superseded by the subsequent issuance of licensing-related documents, whether a draft environmental impact statement or an applicant's response to a request for additional information; LBP-10-14, 72 NRC 101 (2010)

for a contention of omission, if the information is later supplied by applicant or considered by Staff in a draft EIS, the contention is moot and intervenors must timely file a new or amended contention in order to raise specific challenges regarding the new information; LBP-10-14, 72 NRC 101 (2010)
if applicant cures the omission on which a contention is based, the contention will become moot; LBP-10-16, 72 NRC 361 (2010)
imminent mootness of an issue has been cause for taking interlocutory review if the issue sought to be reviewed would have become moot by the time the board issued a final decision; CLI-10-29, 72 NRC 556 (2010)
the question whether to hold an NRC enforcement proceeding in abeyance pending a related criminal prosecution is generally suitable for interlocutory Commission review because, unlike most interlocutory questions, the abeyance issue cannot await the end of the proceeding because it becomes moot; CLI-10-29, 72 NRC 556 (2010)
where a contention is superseded by the subsequent issuance of licensing-related documents the contention must be disposed of or modified; LBP-10-17, 72 NRC 501 (2010)
MOTIONS
intervenors must move for leave to file a timely new or amended contention under 10 C.F.R. 2.309(c), (f)(2); LBP-10-14, 72 NRC 101 (2010)
motions are to be filed within 10 days of the event or circumstance from which they arise; LBP-10-23, 72 NRC 692 (2010)
MOTIONS FOR RECONSIDERATION
petitioners must seek leave to request reconsideration of a decision and set forth compelling circumstances that petitioners could not reasonably have anticipated and that would render the decision invalid; CLI-10-21, 72 NRC 197 (2010)
MOTIONS TO COMPEL
a party seeking to challenge NRC Staff's claim of privilege or protected status may file a motion to compel production of the document; CLI-10-24, 72 NRC 451 (2010)
the board grants intervenors' motion to compel disclosure of certain groundwater modeling information associated with a combined license application; LBP-10-23, 72 NRC 692 (2010)
MOTIONS TO REOPEN
a timely motion may be denied if it raises issues that are not of major significance to plant safety whereas a nontimely motion may be granted if it raises an issue of sufficient gravity; LBP-10-21, 72 NRC 616 (2010)
affidavits must set forth the factual and/or technical bases for the movant's claim that the criteria of 10 C.F.R. 2.326(a) have been satisfied, including addressing each of the reopening criteria separately with a specific explanation of why it has been met; LBP-10-19, 72 NRC 529 (2010); LBP-10-21, 72 NRC 616 (2010)
although the motion must be timely, an exceptionally grave issue may be considered even if the motion is not timely; LBP-10-19, 72 NRC 529 (2010)
an untimely motion must demonstrate that the issue raised is not merely significant but exceptionally grave; LBP-10-21, 72 NRC 616 (2010)
factors (vii) and (viii) of 10 C.F.R. 2.309(c)(1) are generally considered to have the most significance in the balancing process in instances in which there are no other parties or ongoing related proceedings; LBP-10-21, 72 NRC 616 (2010)
good cause for late filing is the most important factor, and failure to meet this factor considerably enhances the burden of showing that the other factors justify admission of a late-filed petition; LBP-10-21, 72 NRC 616 (2010)
if a motion to reopen and the proposed new contention are based on material information that was not previously available, then it qualifies as timely; LBP-10-19, 72 NRC 529 (2010)
if a motion to reopen relates to a contention not previously in controversy among the parties, movant must meet the late-filing requirements of section 2.309(c); LBP-10-21, 72 NRC 616 (2010)
in addressing the section 2.309(c)(1) factors, failure to provide any specific discussion of most of these items or the weight they should be given in the balance is a potentially fatal omission; LBP-10-21, 72 NRC 616 (2010)

in light of the requirements that any new contention be based on material information that was not previously available, the timeliness determination required under 10 C.F.R. 2.309(f)(2) and the section 2.326(a) reopening standard can be closely equated; LBP-10-21, 72 NRC 616 (2010)
movant must show that it is more probable than not that it would have prevailed on the merits of the proposed new contention; LBP-10-19, 72 NRC 529 (2010)
new contention asserting issues related to aging management of effects of moist or wet environments on buried, below-grade, underground, or hard-to-access safety-related electrical cables is denied; LBP-10-19, 72 NRC 529 (2010)
once a licensing board has concluded board action on a licensing case, jurisdiction to decide a motion to reopen regarding that proceeding passes to the Commission, which retains jurisdiction until the license in question has been issued; LBP-10-21, 72 NRC 616 (2010)
proceeding will remain open during the pendency of a remand, during which time, petitioners are free to submit a motion to reopen the record should they seek to address any genuinely new issues related to the license renewal application that previously could not have been raised; CLI-10-17, 72 NRC 1 (2010)
proponent of a motion to reopen must do more than simply raise a safety issue, but must show that the safety issue it raises is significant; LBP-10-19, 72 NRC 529 (2010)
the Commission's referral of a motion to reopen to the ASLBP and subsequent establishment of the board gives the board jurisdiction over the motion; LBP-10-21, 72 NRC 616 (2010)
the significance of the issue being raised by a new contention would be a relevant "good cause" consideration; LBP-10-21, 72 NRC 616 (2010)
timeliness of a new contention depends primarily on an assessment as to when the proponent of the motion first knew, or should have known, enough information to raise the issues presented in the new contention; LBP-10-19, 72 NRC 529 (2010)
timeliness of the motion depends on what/when was the trigger that provided the footing for the new contention and whether the motion was timely filed after that trigger event; LBP-10-21, 72 NRC 616 (2010)
to interpose a new contention after a proceeding has been terminated requires submission of a fresh intervention petition that fulfills the applicable standards for such filings, including an appropriate standing demonstration; LBP-10-21, 72 NRC 616 (2010)
to introduce an entirely new contention, petitioner must successfully navigate at least nineteen different regulatory factors under 10 C.F.R. 2.326, 2.309(c), and 2.309(f)(1); LBP-10-19, 72 NRC 529 (2010)
when a contested proceeding has been terminated following the resolution of all submitted contentions, an individual, group, or governmental entity that wishes to interpose an additional issue must submit a new intervention petition that addresses the standards in section 2.309(c)(1) that govern nontimely intervention petitions; LBP-10-21, 72 NRC 616 (2010)
when a reopening motion is untimely, the section 3.326(a)(1) "exceptionally grave circumstances" test supplants the "significant issue" standard under section 2.326(a)(2); LBP-10-21, 72 NRC 616 (2010)
when petitioner seeks to introduce a new contention after the record has been closed, it should address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing; LBP-10-21, 72 NRC 616 (2010)
where a motion to introduce a new contention foundered on several of the initial criteria, the board found it unnecessary to analyze all of the other factors; LBP-10-19, 72 NRC 529 (2010)
MOTIONS TO STRIKE
intervenor's appeal 3 days out of time was accepted when applicants' motion to strike failed to even hint at prejudice; LBP-10-21, 72 NRC 616 (2010)
MOTIONS TO WITHDRAW
absent written consent of the party and the prior appearance of another attorney, many courts require that an attorney file a motion to withdraw; LBP-10-21, 72 NRC 616 (2010)
MUNITIONS
petitioner's argument that high-explosive munitions could fall onto depleted uranium, pulverizing and igniting the DU and generating aerosols that might travel through the air, providing an inhalation pathway for offsite exposure was contradicted by the Army's statement that it does not use high-impact explosives in the area where DU is present; CLI-10-20, 72 NRC 185 (2010)

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NATIONAL ENVIRONMENTAL POLICY ACT
a rule of reason applies to the assessment of the adequacy of a NEPA analysis; CLI-10-18, 72 NRC 56 (2010)
a rule of reason is implicit in NEPA's requirement that an agency consider reasonable alternatives to a proposed action; CLI-10-18, 72 NRC 56 (2010); CLI-10-22, 72 NRC 202 (2010)
a SAMA analysis contention was found to be inadmissible because it lacked supporting information regarding the relative costs and benefits of that proposed alternative; LBP-10-15, 72 NRC 257 (2010)
accuracy and reliability of the agency's need-for-power determination, as reflected in the draft EIS, is material to the licensing decision; LBP-10-24, 72 NRC 720 (2010)
adequacy of the NEPA alternatives analysis is judged on the substance of the alternatives rather than the sheer number of alternatives examined; CLI-10-18, 72 NRC 56 (2010)
agencies are not allowed to define objectives of a project so narrowly as to preclude a reasonable consideration of alternatives; CLI-10-18, 72 NRC 56 (2010)
alternatives analysis is the heart of the environmental impact statement; LBP-10-24, 72 NRC 720 (2010)
alternatives that do not advance the purpose of the project will not be considered reasonable or appropriate; CLI-10-18, 72 NRC 56 (2010)
although "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated the terms clearly limit them to nuclear reactors and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 257 (2010)
although substantial weight is accorded to a license applicant's preferences, if the identified purpose of a proposed project reasonably may be accomplished at locations other than the proposed site, the board may require consideration of those alternative sites; CLI-10-18, 72 NRC 56 (2010)
although the discussion of alternatives in the environmental assessment need only be brief, it must be sufficient to fully comply with the requirement to study, develop, and describe appropriate alternatives; CLI-10-18, 72 NRC 56 (2010)
although the duty to comply with NEPA falls upon the agency and not upon the applicant or licensee, the requirements of Part 51 must be met by the applicant; LBP-10-16, 72 NRC 361 (2010)
although the obligations under NEPA fall to the agency and therefore the NRC Staff, petitioners are required to raise environmental objections based on the applicant's environmental report; LBP-10-15, 72 NRC 257 (2010)
an agency is required to address the purpose of the proposed project, reasonable alternatives to the project, and to what extent the agency should explore each particular reasonable alternative; CLI-10-18, 72 NRC 56 (2010)
an agency's consideration of alternatives is sufficient if it considers an appropriate range of alternatives, even if it does not consider every available alternative; LBP-10-24, 72 NRC 720 (2010)
an environmental impact statement is not intended to be a research document; CLI-10-22, 72 NRC 202 (2010)
an environmental impact statement must include a detailed statement of reasonable alternatives to a proposed action; LBP-10-24, 72 NRC 720 (2010)
as long as all reasonable alternatives have been considered and an appropriate explanation is provided as to why an alternative was eliminated, the regulatory requirement is satisfied; CLI-10-18, 72 NRC 56 (2010)
by defining significantly different information in the draft EIS as a permissible basis for filing a new contention, the Commission has in effect concluded that such new information is good cause for filing a new contention; LBP-10-24, 72 NRC 720 (2010)
certain actions are designated as categorically excluded from the requirement to prepare an environmental assessment or an environmental impact statement; CLI-10-18, 72 NRC 56 (2010)
challenges to a severe accident mitigation design alternatives analysis are within the scope of a combined license proceeding; LBP-10-14, 72 NRC 101 (2010)
compliance with NEPA requires that, if new and significant information arises after the date of the issuance of the EIS and before the agency decision, then the agency must supplement or revise its EIS and consider such information; LBP-10-15, 72 NRC 257 (2010)
consideration of energy efficiency is not a reasonable alternative, where that alternative would not achieve applicant's goal of providing additional power to sell on the open market, and is not possible for an

applicant who has no transmission or distribution system of its own, and no link to the ultimate power consumer; CLI-10-21, 72 NRC 197 (2010)
contention raising question of whether a quantitative as opposed to qualitative analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary is referred to the Commission as a novel issue; LBP-10-15, 72 NRC 257 (2010)
Council on Environmental Quality regulations receive substantial deference from federal courts in interpreting the requirements of NEPA; LBP-10-16, 72 NRC 361 (2010)
economic impact of a proposed action on ratepayers is outside the scope of a NEPA analysis; LBP-10-14, 72 NRC 101 (2010)
environmental review in the license renewal process is unlike the Commission's Part 54 review because the NEPA review covers all environmental impacts associated with license renewal and is not limited to aging-related issues; LBP-10-15, 72 NRC 257 (2010)
even if offsite construction does not appear to be part of the plan, it does not follow that offsite consequences need not be considered; CLI-10-18, 72 NRC 56 (2010)
existence of reasonable but unexamined alternatives renders an environmental impact statement inadequate; LBP-10-24, 72 NRC 720 (2010)
federal agencies are required to consider the likely environmental impacts of the preferred course of action as well as reasonable alternatives; LBP-10-24, 72 NRC 720 (2010)
federal agencies are required to study, develop, and describe appropriate alternatives to recommend courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources; CLI-10-18, 72 NRC 56 (2010)
federal agencies are required, to the fullest extent possible, to include in every recommendation or report on proposals for major federal actions significantly affecting the quality of the human environment a detailed statement on the environmental impact of the proposed action; CLI-10-18, 72 NRC 56 (2010)
for a contention regarding environmental impacts of spent fuel storage to be within the scope of an operating license renewal proceeding, petitioner must obtain a waiver under 10 C.F.R. 2.335(d); LBP-10-15, 72 NRC 257 (2010)
further review of need for power and alternative energy sources is precluded once a construction permit has been issued; CLI-10-29, 72 NRC 556 (2010)
general statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided; CLI-10-18, 72 NRC 56 (2010)
given that consideration of terrorist attacks is part of the NRC's NEPA obligations in the Ninth Circuit, the issue of whether terrorist attacks have been fully considered in the NEPA analysis for a power plant in that jurisdiction is plainly material to the decision the NRC must make; LBP-10-15, 72 NRC 257 (2010)
if issuing a license involves oversight of a private project rather than a federally sponsored project, the agency is entitled to give the applicant's preferences substantial weight when considering project design alternatives; LBP-10-14, 72 NRC 101 (2010)
if significant new information becomes available, NRC Staff must explain how it took the new information into account in determining whether the additional generating capacity is required; LBP-10-24, 72 NRC 720 (2010)
impacts that are reasonably foreseeable under NEPA must be analyzed publicly, even if their probability of occurrence is low; CLI-10-18, 72 NRC 56 (2010)
impacts that are remote and speculative or inconsequentially small need not be examined; LBP-10-14, 72 NRC 101 (2010)
inherent in any forecast of future electric power demands is a substantial margin of uncertainty; LBP-10-24, 72 NRC 720 (2010)
intervenor that has sufficient information to file a NEPA contention but delays that filing until publication of the environmental impact statement does so at its peril; LBP-10-24, 72 NRC 720 (2010)
it is not enough to consider only the proposed action and the no-action alternative in an environmental assessment; CLI-10-18, 72 NRC 56 (2010)
it is the NRC Staff, not the intervenors, that has the burden of complying with NEPA; LBP-10-24, 72 NRC 720 (2010)
license renewal environmental reports must include a severe accident mitigation alternatives analysis if not previously considered by NRC Staff; LBP-10-15, 72 NRC 257 (2010)

licensing boards do not sit to flyspeck environmental documents or to add details or nuances; LBP-10-14, 72 NRC 101 (2010)
NRC has broad discretion to determine how thoroughly it needs to analyze a particular subject for NEPA compliance; LBP-10-14, 72 NRC 101 (2010)
NRC is not required to assess the potential health effects of consuming irradiated food; CLI-10-18, 72 NRC 56 (2010)
NRC is not required to consider every imaginable alternative to a proposed action, but rather only reasonable alternatives; LBP-10-14, 72 NRC 101 (2010)
NRC is prohibited from using NEPA to impose additional effluent limitations on an applicant's wastewater discharges to surface waters; LBP-10-14, 72 NRC 101 (2010)
NRC is required to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information, and significant uncertainties; CLI-10-22, 72 NRC 202 (2010)
NRC may, consistent with NEPA, define baseload power generation as the purpose of and need for a project; LBP-10-24, 72 NRC 720 (2010)
NRC regulations do not impose a numerical floor on alternatives to be considered; CLI-10-18, 72 NRC 56 (2010)
NRC Staff is required under NEPA to evaluate reasonable technological and geographical alternatives to the proposed irradiator; CLI-10-18, 72 NRC 56 (2010)
NRC Staff must balance the benefits of the project against its environmental costs; LBP-10-24, 72 NRC 720 (2010)
on issues arising under the National Environmental Policy Act, petitioner shall file contentions based on the applicant's environmental report; LBP-10-24, 72 NRC 720 (2010)
petitioner has alleged sufficient new information concerning the seismic situation to raise a prima facie showing that strict application of the generic NEPA analysis of the management of spent fuel in nuclear reactors would not serve the purpose for which Part 51 Appendix B and 10 C.F.R. 51.53(c)(2) were adopted; LBP-10-15, 72 NRC 257 (2010)
petitioner may amend contentions based on the applicant's environmental report or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement, environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents; LBP-10-24, 72 NRC 720 (2010)
petitioner need not submit a sensitivity analysis in order to establish that a SAMA-related contention is material; LBP-10-15, 72 NRC 257 (2010)
project goals are to be determined by the applicant, not the agency; CLI-10-18, 72 NRC 56 (2010)
purpose of the cost-benefit analysis called for by NEPA is to identify each significant environmental cost and to determine whether, all other factors considered, on balance the incurring of that cost is warranted; LBP-10-24, 72 NRC 720 (2010)
severe accident mitigation alternatives analyses are rooted in a cost-benefit assessment and the purpose of the assessment is to identify plant changes whose costs would be less than their benefit; LBP-10-14, 72 NRC 101 (2010)
Staff's failure to disclose data underlying its terrorism analysis in the final environmental assessment failed to meet the NEPA-mandated hard-look standard; CLI-10-18, 72 NRC 56 (2010)
the alternatives provision of section 102(2)(E) applies both when an agency prepares an environmental impact statement and when it prepares an environmental assessment; CLI-10-18, 72 NRC 56 (2010)
the central purpose of Part 51 rules is to allow NRC to comply with NEPA by identifying and evaluating environmental impacts that are generic to reactor license renewal proceedings and then allowing applicant and NRC to dispense with site-specific evaluations of such environmental impacts in situations covered by the generic analysis; LBP-10-15, 72 NRC 257 (2010)
the Commission may find special circumstances warranting a categorical exclusion upon its own initiative, or upon the request of an interested person; CLI-10-18, 72 NRC 56 (2010)
the cost-benefit analysis involves the scrutiny of many factors, among them, offsetting benefits, available alternatives, and the possible means (and attendant costs) of reducing the environmental harm; LBP-10-24, 72 NRC 720 (2010)
the duty to consider the environmental impacts of a proposed action incorporates, at least implicitly, considerations of the probability of a particular consequence occurring; LBP-10-15, 72 NRC 257 (2010)

the general rule applicable to cases involving differences or changes in demand forecasts is not whether applicant will need additional generating capacity but when; LBP-10-24, 72 NRC 720 (2010)
the hard-look doctrine is subject to a rule of reason that the Commission has interpreted as obligating the agency to consider all reasonable alternatives to the proposed action; LBP-10-14, 72 NRC 101 (2010)
the NEPA requirement to prepare an environmental impact statement is a procedural mechanism designed to ensure that agencies give proper consideration to the environmental consequences of their actions; LBP-10-24, 72 NRC 720 (2010)
the obligation of agencies to consider alternatives is a lesser one under an environmental assessment than under an environmental impact statement; CLI-10-18, 72 NRC 56 (2010)
the range of alternatives that must be considered need not extend beyond those reasonably related to the purposes of the project and a rule of reason necessarily informs that choice; CLI-10-18, 72 NRC 56 (2010)
the rule of reason excludes consideration of demand-side management if the proposed new plant is intended to be a merchant plant, selling power on the open market, because it is not feasible for licensee to engage in demand-side management; CLI-10-21, 72 NRC 197 (2010)
the statute does not mandate particular results, but simply prescribes the necessary process; LBP-10-24, 72 NRC 720 (2010)
the statute imposes procedural requirements on the NRC to take a hard look at the environmental impacts of building and operating a nuclear reactor; LBP-10-14, 72 NRC 101 (2010)
there must be a finding that something is remote and speculative to preclude it from further analysis, and there must be support in the agency's record of decision to justify this finding; LBP-10-14, 72 NRC 101 (2010)
when a new contention is filed challenging new data or conclusions in NRC's environmental documents, the timeliness of the new contention is based on whether it was filed promptly after the NRC's NEPA document became publicly available, not whether it was filed promptly after the information on which the intervenor bases its challenge became publicly available; LBP-10-24, 72 NRC 720 (2010)
when reviewing a discrete license application filed by a private applicant, a federal agency may appropriately accord substantial weight to the preferences of the applicant and/or sponsor in the siting and design of the project; CLI-10-18, 72 NRC 56 (2010)
when there are substantial changes in a proposed action that are relevant to environmental concerns, NRC Staff will prepare a supplement to a final environmental impact statement; LBP-10-17, 72 NRC 501 (2010)
whether and how the Staff fulfills its National Historic Preservation Act and NEPA obligations are issues that could form the basis of a new contention; LBP-10-16, 72 NRC 361 (2010)
NATIONAL HISTORIC PRESERVATION ACT
an Indian tribe claims a procedural interest in identifying, evaluating, and establishing protections for historic and cultural resources; LBP-10-16, 72 NRC 361 (2010)
federal agencies must follow notification and consultation procedures prior to a federal undertaking to consider the undertaking's effect on historic properties; LBP-10-16, 72 NRC 361 (2010)
prior to issuance of any license, federal agencies must take into account the effect of the federal action on any area eligible for inclusion in the National Register of Historic Places; LBP-10-16, 72 NRC 361 (2010)
to establish an injury in fact, a party merely has to show some threatened concrete interest personal to the party that the National Historic Preservation Act was designed to protect; LBP-10-16, 72 NRC 361 (2010)
tribes that have addressed procedural violations of the National Historic Preservation Act have uniformly been granted standing under the relaxed standard and have proceeded directly to the merits of the NHPA claim; LBP-10-16, 72 NRC 361 (2010)
whether and how the Staff fulfills its National Historic Preservation Act and NEPA obligations are issues that could form the basis of a new contention; LBP-10-16, 72 NRC 361 (2010)
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
NRC is prohibited from using NEPA to impose additional effluent limitations on an applicant's wastewater discharges to surface waters; LBP-10-14, 72 NRC 101 (2010)

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT
notification and inventory procedures are required so that Indian cultural objects and burial remains found on federal lands will be repatriated to the appropriate tribe; LBP-10-16, 72 NRC 361 (2010)
NATIVE AMERICANS
a consulting tribe is entitled to a reasonable opportunity to identify its concerns about historic properties, to advise on the identification and evaluation of them (including those of traditional religious and cultural importance), to articulate its views on the undertaking's effects on such properties, and to participate in the resolution of adverse effects; LBP-10-16, 72 NRC 361 (2010)
a federally recognized Indian tribe may seek to participate in a proceeding; LBP-10-16, 72 NRC 361 (2010)
a tribe is free to file a contention later in the proceeding if, after Staff releases its environmental documents, the tribe believes that the Staff has failed to satisfy its obligations under NEPA and the National Historic Preservation Act; LBP-10-16, 72 NRC 361 (2010)
a tribe may become a consulting party if its property, potentially affected by a federal undertaking, has religious or cultural significance; LBP-10-16, 72 NRC 361 (2010)
an Indian tribe claims a procedural interest in identifying, evaluating, and establishing protections for historic and cultural resources; LBP-10-16, 72 NRC 361 (2010)
criteria and procedures pursuant to which a federal land manager may issue excavation permits for federal lands are provided as well as notification to Indian tribes if permits may result in harm to cultural or religious sites; LBP-10-16, 72 NRC 361 (2010)
federal agencies must follow notification and consultation procedures prior to a federal undertaking to consider the undertaking's effect on historic properties; LBP-10-16, 72 NRC 361 (2010)
federal agencies should be sensitive to the special concerns of Indian tribes in historic preservation issues, which often extend beyond Indian lands to other historic properties, and should invite the governing body of the responsible tribe to be a consulting party and to concur in any agreement; LBP-10-16, 72 NRC 361 (2010)
it is not the duty of applicant to consult with a tribe regarding cultural resources at a proposed site, but instead is the duty of the agency to initiate and follow through with the consultation process; LBP-10-16, 72 NRC 361 (2010)
preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 361 (2010)
tribes that have addressed procedural violations of the National Historic Preservation Act have uniformly been granted standing under the relaxed standard and have proceeded directly to the merits of the NHPA claim; LBP-10-16, 72 NRC 361 (2010)
where a facility will not be located within an Indian tribe's boundaries, the tribe must meet the standing requirements imposed by 10 C.F.R. 2.309(d)(1); LBP-10-16, 72 NRC 361 (2010)
NEED FOR POWER
accuracy and reliability of the agency's need-for-power determination, as reflected in the draft EIS, is material to the licensing decision; LBP-10-24, 72 NRC 720 (2010)
contention that calls for a more detailed analysis than NRC requires is inadmissible; LBP-10-24, 72 NRC 720 (2010)
fluctuations in demand that may occur over a period of several years, such as changes brought about by an economic recession, are not a legally sufficient ground for challenging the need for power analysis; LBP-10-24, 72 NRC 720 (2010)
further review of need for power and alternative energy sources are precluded once a construction permit has been issued; CLI-10-29, 72 NRC 556 (2010)
if significant new information becomes available, NRC Staff must explain how it took the new information into account in determining whether the additional generating capacity is required; LBP-10-24, 72 NRC 720 (2010)
inherent in any forecast of future electric power demands is a substantial margin of uncertainty; LBP-10-24, 72 NRC 720 (2010)
the general rule applicable to cases involving differences or changes in demand forecasts is not whether applicant will need additional generating capacity but when; LBP-10-24, 72 NRC 720 (2010)

NOTICE AND COMMENT PROCEDURES
when an adjudicating agency retroactively applies a new legal standard that significantly alters the rules of the game, the agency is obliged to give litigants proper notice and a meaningful opportunity to adjust; CLI-10-23, 72 NRC 210 (2010)
NOTIFICATION
criteria and procedures pursuant to which a federal land manager may issue excavation permits for federal lands are provided as well as notification to Indian tribes if permits may result in harm to cultural or religious sites; LBP-10-16, 72 NRC 361 (2010)
federal agencies must follow notification and consultation procedures prior to a federal undertaking to consider the undertaking's effect on historic properties; LBP-10-16, 72 NRC 361 (2010)
NRC GUIDANCE DOCUMENTS
because of the security-related SUNSI categorization of a Staff guidance document used to assess an application's compliance with NRC rules, the Staff would not have to produce the document but would be required to identify the document as part of its continuing duty of disclosure; CLI-10-24, 72 NRC 451 (2010)
in proffering contentions that challenge an application, petitioner or intervenor must provide support, including references to sources and documents on which it intends to rely, and a guidance document could be one of those sources; CLI-10-24, 72 NRC 451 (2010)
litigant opposing a licensing action is entitled to challenge the sufficiency of any guidance document on which a licensee or applicant relies, but it must do so with substantive support; CLI-10-17, 72 NRC 1 (2010)
Staff guidance documents are not legally binding, but can be useful in instances where legal authority is lacking; CLI-10-24, 72 NRC 451 (2010); LBP-10-16, 72 NRC 361 (2010)
the standard review plan provides guidance but does not impose requirements on license renewal applicants; CLI-10-17, 72 NRC 1 (2010)
NRC INSPECTION
based on results of its problem identification and resolution biennial team inspections with annual followup of selected issues at licensed facilities, NRC takes any appropriate enforcement action to ensure compliance with 10 C.F.R. Part 50, Appendix B, Criterion XVI; DD-10-1, 72 NRC 149 (2010)
NRC POLICY
because it disfavors piecemeal appeals, the Commission will grant interlocutory review only in extraordinary circumstances; CLI-10-29, 72 NRC 556 (2010)
contentions that simply state the petitioner's views about what regulatory policy should be do not present a litigable issue; LBP-10-21, 72 NRC 616 (2010)
it is NRC stated policy to take into account Council on Environmental Quality regulations voluntarily, subject to some conditions; CLI-10-18, 72 NRC 56 (2010)
licensing boards should not accept in individual license proceedings contentions that are or are about to become the subject of general rulemaking by the Commission; CLI-10-19, 72 NRC 98 (2010)
the Commission has long endorsed a balanced approach to hearings that both expedites the hearing process and ensures fairness in order to produce a record that leads to high-quality decisions that adequately protect the public health and safety, the common defense and security, and the environment; LBP-10-21, 72 NRC 616 (2010)
NRC PROCEEDINGS
collateral estoppel doctrine has long been recognized as part of NRC adjudicatory practice; CLI-10-23, 72 NRC 210 (2010)
NRC STAFF
although the duty to comply with NEPA falls upon the agency and not upon the applicant or licensee, the requirements of Part 51 must be met by the applicant; LBP-10-16, 72 NRC 361 (2010)
an appeal as of right by the NRC Staff is permitted on the question of whether a request for access to sensitive unclassified nonsafeguards information should have been denied in whole or in part; CLI-10-24, 72 NRC 451 (2010)
it is not the duty of applicant to consult with a tribe regarding cultural resources at a proposed site, but instead is the duty of the agency to initiate and follow through with the consultation process; LBP-10-16, 72 NRC 361 (2010)

Staff has authority to recategorize a violation from a Severity Level III to a violation with no assigned severity level; LBP-10-18, 72 NRC 519 (2010)
the decision to docket, and the subsequent handling of an application, is within the discretion of the Staff; LBP-10-17, 72 NRC 501 (2010)
See also Discovery Against NRC Staff
NRC STAFF REVIEW
boards may not direct the Staff in the performance of its administrative functions; LBP-10-17, 72 NRC 501 (2010)
boards may not order the Staff to cease review of an applicant's revised application or direct the Staff to require an applicant to submit a new application; LBP-10-17, 72 NRC 501 (2010)
contentions that inappropriately focus on Staff's review of the application rather than on the errors and omissions of the application itself are inadmissible; CLI-10-27, 72 NRC 481 (2010)
determination of economic benefits and costs that are tangential to environmental consequences are within a wide area of agency discretion; LBP-10-24, 72 NRC 720 (2010)
if issuing a license involves oversight of a private project rather than a federally sponsored project, the agency is entitled to give the applicant's preferences substantial weight when considering project design alternatives; LBP-10-14, 72 NRC 101 (2010)
if significant new information becomes available, NRC Staff must explain how it took the new information into account in determining whether the additional generating capacity is required; LBP-10-24, 72 NRC 720 (2010)
it is the NRC Staff, not the intervenors, that has the burden of complying with NEPA; LBP-10-24, 72 NRC 720 (2010)
license applications may be modified or improved during the NRC review process; LBP-10-17, 72 NRC 501 (2010)
NEPA imposes procedural requirements on NRC to take a hard look at the environmental impacts of building and operating a nuclear reactor; LBP-10-14, 72 NRC 101 (2010)
NEPA requires evaluation of reasonable technological and geographical alternatives to a proposed irradiator; CLI-10-18, 72 NRC 56 (2010)
NRC Staff is obliged under NEPA to supplement its environmental review documents if there is new and significant information; CLI-10-29, 72 NRC 556 (2010)
potential scope of adjudicatory hearings in license renewal proceedings is the same as the scope of the Staff's review; LBP-10-15, 72 NRC 257 (2010)
the manner in which Staff conducts its review is outside the scope of a proceeding; LBP-10-17, 72 NRC 501 (2010)
there must be a finding that something is remote and speculative to preclude it from further analysis, and there must be support in the agency's record of decision to justify this finding; LBP-10-14, 72 NRC 101 (2010)
NUCLEAR POWER PLANTS
although "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated the terms clearly limit them to nuclear reactors and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 257 (2010)
NUCLEAR REGULATORY COMMISSION, AUTHORITY
although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 1 (2010)
although interlocutory appeal is denied, the Commission exercises its inherent supervisory authority over adjudications to take sua sponte review of a board order; CLI-10-27, 72 NRC 481 (2010)
as an exercise of the Commission's inherent supervisory authority over adjudicatory proceedings, the Commission directs the board to provide the Commission with a status report outlining the board's timetable for resolving all pending matters; CLI-10-18, 72 NRC 56 (2010)
discretionary Commission review of a presiding officer's initial decision is allowed under 10 C.F.R. 2.341(b)(1); CLI-10-17, 72 NRC 1 (2010)
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); CLI-10-18, 72 NRC 56 (2010)

in its supervisory capacity, the Commission provides guidance on the "need for SUNSI" analysis, for use in those instances when an access order applies; CLI-10-24, 72 NRC 451 (2010)
parties should not seek interlocutory review by invoking the grounds under which the Commission might exercise its supervisory authority; CLI-10-30, 72 NRC 564 (2010)
the agency has broad discretion to determine how thoroughly it needs to analyze a particular subject for NEPA compliance; LBP-10-14, 72 NRC 101 (2010)
the Commission may find special circumstances warranting a categorical exclusion upon its own initiative, or upon the request of an interested person; CLI-10-18, 72 NRC 56 (2010)
the Commission may take discretionary review of a licensing board's initial decision; CLI-10-23, 72 NRC 210 (2010)
the Commission may, at its discretion, grant a party's request for interlocutory review of a board decision; CLI-10-29, 72 NRC 556 (2010); CLI-10-30, 72 NRC 564 (2010)
the Commission refrains from exercising its authority to make de novo findings of fact in situations where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-10-18, 72 NRC 56 (2010)
where the Commission found that the board did not provide clarity on the scope of admitted contentions, it exercised its authority to reformulate the contentions; CLI-10-18, 72 NRC 56 (2010)
NUCLEAR REGULATORY COMMISSION, JURISDICTION
once a licensing board has concluded board action on a licensing case, jurisdiction to decide a motion to reopen regarding that proceeding passes to the Commission, which retains jurisdiction until the license in question has been issued; LBP-10-21, 72 NRC 616 (2010)
the Commission's referral of a motion to reopen to the ASLBP and subsequent establishment of the board gives the board jurisdiction over the motion; LBP-10-21, 72 NRC 616 (2010)
NUCLEAR WASTE POLICY ACT
no requirement for a quantitative evaluation of an individual barrier's capabilities appears in the statutory language of the Nuclear Waste Policy Act; LBP-10-22, 72 NRC 661 (2010)
NRC is given flexibility in determining how best to provide for the use of a system of multiple barriers in the design of the high-level waste repository; LBP-10-22, 72 NRC 661 (2010)
section 121 does not require that each barrier provide either wholly independent protection or a specifically quantified amount of protection in the high-level waste repository; LBP-10-22, 72 NRC 661 (2010)
OFFER OF PROOF
because appellant submitted no offer of proof, its case could be so weak that the denial of a right to reply by the licensing board would have been harmless error; CLI-10-23, 72 NRC 210 (2010)
if appellant had submitted an offer of proof, indicating what rebuttal evidence it would have offered to the board, then the Commission might have some basis for determining whether that evidence would be substantial enough to justify a remand to the Board; CLI-10-23, 72 NRC 210 (2010)
OFFICIAL NOTICE
a board rested its findings regarding a contention, in part, on certain facts that it officially noticed; CLI-10-17, 72 NRC 1 (2010)
OPERATING LICENSE PROCEEDINGS
administrative regularity in the regulatory process is assumed, and review of the operating license application takes place independently of that associated with plant construction; CLI-10-29, 72 NRC 556 (2010)
further review of need for power and alternative energy sources are precluded once a construction permit has been issued; CLI-10-29, 72 NRC 556 (2010)
OPERATING LICENSE RENEWAL
after issuance of a renewed license, licensee may demonstrate that its use of an aging management program identified in the GALL Report constitutes reasonable assurance that it will manage the targeted aging effect during the renewal period; CLI-10-17, 72 NRC 1 (2010)
aging management review addresses activities identified in 10 C.F.R. 54.21(a)(3) and (c)(1) regarding the integrated plant assessment; CLI-10-17, 72 NRC 1 (2010)
although "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated the terms clearly limit them to nuclear reactors and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 257 (2010)

an aging management program is intended to manage the effects of aging on a particular component by, e.g., ensuring that the fatigue usage factor for the component does not exceed the design code limit; CLI-10-17, 72 NRC 1 (2010)
because environmentally adjusted cumulative usage factors are not contained in licensee's current licensing basis, they cannot be time-limited aging analyses and thereby a prerequisite to license renewal; CLI-10-17, 72 NRC 1 (2010)
Commission review is in the public interest if the decision could affect pending and future license renewal determinations; CLI-10-17, 72 NRC 1 (2010)
feedwater, core spray, and reactor recirculation outlet nozzles, as part of the reactor coolant pressure boundary, must meet the metal-fatigue requirements for Class 1 components in Section III of the ASME Code; CLI-10-17, 72 NRC 1 (2010)
licensee must comply with Part 50 regulations, including the provisions requiring compliance with the ASME Code, during the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
NRC is not barred from considering licensee's past and continuing managerial and performance problems when it determines whether licensee has demonstrated that actions will be taken to manage the effects of aging during the period of extended operation; LBP-10-15, 72 NRC 257 (2010)
the aging management review for license renewal does not focus on all aging-related issues; CLI-10-27, 72 NRC 481 (2010)
the Generic Aging Lessons Learned Report sets forth three ways that a license renewal applicant proposing to use an aging management plan may comply with the requirements of 10 C.F.R. 54.21(c)(1)(iii); CLI-10-17, 72 NRC 1 (2010)
the only safety issue where the regulatory process may not adequately maintain a plant's current licensing basis involves the potential detrimental effects of aging on the functionality of certain systems, structures, and components in the period of extended operations; CLI-10-27, 72 NRC 481 (2010)
the standard review plan provides guidance but does not impose requirements on license renewal applicants; CLI-10-17, 72 NRC 1 (2010)
OPERATING LICENSE RENEWAL PROCEEDINGS
absence of perfect compliance by licensee does not rebut the presumption of compliance or support admission of a contention that the application does not satisfy 10 C.F.R. 54.29(a), but a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment will; LBP-10-15, 72 NRC 257 (2010)
allegation of facts, with supporting documentation, of a longstanding and continuing pattern of noncompliance or management difficulties that are reasonably linked to whether licensee will actually be able to adequately manage aging in accordance with the current licensing basis during the period of extended operation can be an admissible contention; LBP-10-15, 72 NRC 257 (2010)
broad-based issues akin to safety culture, such as operational history, quality assurance, quality control, management competence, and human factors, are beyond the bounds of a license renewal proceeding; CLI-10-27, 72 NRC 481 (2010)
challenges to the current licensing basis are outside the scope of a license renewal proceeding; LBP-10-15, 72 NRC 257 (2010)
for a contention regarding environmental impacts of spent fuel storage to be within the scope of an operating license renewal proceeding, petitioner must obtain a waiver under 10 C.F.R. 2.335(d); LBP-10-15, 72 NRC 257 (2010)
license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to NRC ongoing compliance oversight activity; CLI-10-27, 72 NRC 481 (2010)
petitioner has presented a prima facie showing for waiver of the NRC regulation covering the environmental impacts of spent fuel pool accidents generically, and has shown that its contention concerning earthquake-induced spent fuel pool accidents is otherwise admissible; LBP-10-15, 72 NRC 257 (2010)
petitioner's assertion that terrorist-act-originated SAMA analysis is required by Ninth Circuit law satisfies the requirements of 10 C.F.R. 2.309(f)(1)(iii) that the issue be within the scope of a license renewal proceeding; LBP-10-15, 72 NRC 257 (2010)
potential scope of adjudicatory hearings for license renewal is the same as the scope of the Staff's review; LBP-10-15, 72 NRC 257 (2010)

the portion of the current licensing basis that can be affected by the detrimental effects of aging is limited to the design bases aspects of the CLB; LBP-10-15, 72 NRC 257 (2010)
the scope of a proceeding under 10 C.F.R. Part 54 encompasses a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to an evaluation of time-limited aging analyses; CLI-10-17, 72 NRC 1 (2010)
ORAL ARGUMENT
as NRC hearings have moved away from the traditional trial-type adversarial format and toward a more informal model, the inquisitorial role of the presiding officer necessarily has increased; CLI-10-17, 72 NRC 1 (2010)
diligent, even aggressive, probing for weaknesses in a witness's or counsel's position may be necessary if presiding officers are to fulfill their duty to develop an adequate record that will contribute to informed decisionmaking; CLI-10-17, 72 NRC 1 (2010)
once a hearing is granted under Subpart L, an informal oral hearing on the merits is required except in limited circumstances; CLI-10-18, 72 NRC 56 (2010)
to enable presiding officers to fulfill their duty, they have been given broad authority to examine witnesses at evidentiary hearings; CLI-10-17, 72 NRC 1 (2010)
PARTIES
the party to be prevented from relitigating an issue must have been a party to the prior action, but the party seeking to prevent relitigation through the application of collateral estoppel need not have been a party; CLI-10-23, 72 NRC 210 (2010)
PERFORMANCE ASSESSMENT
adequate confidence in the assessment for the high-level waste repository is derived from sufficient analyses, data, and the technical basis offered to demonstrate compliance with postclosure performance objectives; LBP-10-22, 72 NRC 661 (2010)
analysis is required of only those features, events, and processes that cannot be excluded on the basis of low probability of occurrence and whose exclusion would result in a significant change in the results of the performance assessment for the high-level waste repository in the first 10,000-year postclosure period; LBP-10-22, 72 NRC 661 (2010)
if the performance margins analysis for the high-level waste repository is needed to establish adequate confidence in the total system performance assessment, then it is subject to the quality assurance requirements of 10 C.F.R. 63.142; LBP-10-22, 72 NRC 661 (2010)
only features, events, and processes that produce significant changes in releases or doses within the first 10,000 years after disposal in the high-level waste repository must be included in performance assessments; LBP-10-22, 72 NRC 661 (2010)
the performance margins analysis cannot be used to validate or provide confidence in the total systems performance assessment if its data and models are not qualified under DOE's quality assurance program; LBP-10-22, 72 NRC 661 (2010)
PERJURY
the entire focus of a perjury inquiry centers on what the testifier knew and when he knew it, in order to establish beyond a reasonable doubt that he knew his testimony to be false when he gave it; CLI-10-23, 72 NRC 210 (2010)
PERMITS
criteria and procedures pursuant to which a federal land manager may issue excavation permits for federal lands are provided as well as notification to Indian tribes if permits may result in harm to cultural or religious sites; LBP-10-16, 72 NRC 361 (2010)
See also Construction Permits
PLEADINGS
a party at risk of filing out of time can request an extension, doing so well before the time specified expires; LBP-10-21, 72 NRC 616 (2010)
an appeal that merely recites earlier arguments without explaining how they demonstrate legal error or abuse of discretion on the board's part does not satisfy NRC pleading standards; CLI-10-21, 72 NRC 197 (2010)
counsel's alleged unfamiliarity with the agency's rules of practice or counsel's asserted busy schedule are not satisfactory explanations for late filings; LBP-10-21, 72 NRC 616 (2010)

it is not the board's duty to forage through a petition in order to find statements or other support that may be located in various portions of the petition but not referenced in the contention; LBP-10-16, 72 NRC 361 (2010)
participant filing out of time must offer a satisfactory explanation for its lateness, including, if necessary, an account as to why a request for extension could not have been filed beforehand; LBP-10-21, 72 NRC 616 (2010)
petitioners represented by counsel are held to higher standard of specificity in pleading; CLI-10-20, 72 NRC 185 (2010)
POWER UPRATE
extended power uprate proceeding that has been terminated may not be reopened; CLI-10-17, 72 NRC 1 (2010)
PRECEDENTIAL EFFECT
legal authorities may be binding, adverse, or merely persuasive, but all authorities must possess some legal and precedential/persuasive value; LBP-10-21, 72 NRC 616 (2010)
unreviewed board decisions lack precedential effect; CLI-10-23, 72 NRC 210 (2010); CLI-10-29, 72 NRC 556 (2010); CLI-10-30, 72 NRC 564 (2010)
PREJUDICE
Staff's petition for review is granted on the grounds that Staff has demonstrated substantial questions as to the board's correct application of NEPA jurisprudence, and as to whether certain actions taken by the board constituted prejudicial procedural error; CLI-10-18, 72 NRC 56 (2010)
to prevail on a disqualification motion, petitioner first must demonstrate that the purported instances of bias had a substantial impact on the outcome of the proceeding; CLI-10-17, 72 NRC 1 (2010)
PRESIDING OFFICER
a judge's use of strong language toward a party or in expressing his views on matters before him does not constitute evidence of personal bias; CLI-10-17, 72 NRC 1 (2010)
PRESIDING OFFICER, AUTHORITY
as NRC hearings have moved away from the traditional trial-type adversarial format and toward a more informal model, the inquisitorial role of the presiding officer necessarily has increased; CLI-10-17, 72 NRC 1 (2010)
diligent, even aggressive, probing for weaknesses in a witness's or counsel's position may be necessary if presiding officers are to fulfill their duty to develop an adequate record that will contribute to informed decisionmaking; CLI-10-17, 72 NRC 1 (2010)
in procedural and scheduling matters, where first-hand contact with and appreciation for all the circumstances surrounding a case are necessary, maximum reliance on the proper discretion of a presiding officer is essential; CLI-10-17, 72 NRC 1 (2010)
the informal procedural rules of Part 2, Subpart L place greater emphasis and responsibility on the presiding officer to oversee the development of a full and complete record; CLI-10-17, 72 NRC 1 (2010)
to enable presiding officers to fulfill their duty, they have been given broad authority to examine witnesses at evidentiary hearings; CLI-10-17, 72 NRC 1 (2010)
PRIMA FACIE SHOWING
a board's role in considering a petition for waiver under 10 C.F.R. 2.335 is limited to deciding whether petitioner has made a prima facie showing of special circumstances that would support a waiver; LBP-10-15, 72 NRC 257 (2010)
a prima facie showing merely requires the presentation of enough information to allow a board to infer (absent disproof) that special circumstances exist to support a rule waiver; LBP-10-15, 72 NRC 257 (2010)
because petitioner had not made a prima facie case for rule waiver, the board declined to certify the matter to the Commission and found that it was prohibited from considering the matter further; CLI-10-29, 72 NRC 556 (2010)
existence of a prima facie case is determined based on the sufficiency of the movant's assertions and informational/evidentiary support alone; LBP-10-15, 72 NRC 257 (2010)
petitioner has alleged sufficient new information concerning the seismic situation to raise a prima facie showing that strict application of the generic NEPA analysis of the management of spent fuel in

nuclear reactors would not serve the purpose for which Part 51 Appendix B and 10 C.F.R. 51.53(c)(2) were adopted; LBP-10-15, 72 NRC 257 (2010)
showing necessary for grant of a petition for interlocutory review is described; CLI-10-29, 72 NRC 556 (2010)
PRIVILEGE LOG
for documents that are otherwise discoverable, but for which there is a claim of privilege or protected status, NRC Staff must list them and provide sufficient information for assessing their privilege or protected status; CLI-10-24, 72 NRC 451 (2010); CLI-10-25, 72 NRC 469 (2010)
PRO SE LITIGANTS
although boards should afford greater latitude to a pleading submitted by a pro se petitioner, that petitioner ultimately bears the burden to provide facts sufficient to show standing; CLI-10-20, 72 NRC 185 (2010)
petitioners are held to less rigid pleading standards, so that parties with a clear but imperfectly stated interest in the proceeding are not excluded; CLI-10-20, 72 NRC 185 (2010)
petitioners represented by counsel are held to higher standard of specificity in pleading; CLI-10-20, 72 NRC 185 (2010)
the Commission treats pro se litigants more leniently than litigants with counsel; CLI-10-17, 72 NRC 1 (2010)
PROBABILISTIC RISK ASSESSMENT
PRA is the Commission's accepted and standard practice in severe accident mitigation alternatives analyses; LBP-10-15, 72 NRC 257 (2010)
PROPRIETARY INFORMATION
applicant's claim that computer models should be excused from the mandatory disclosure requirements because they entail proprietary information is rejected; LBP-10-23, 72 NRC 692 (2010)
handling of confidential commercial or financial proprietary information that has been submitted to the agency is governed by 10 C.F.R. 2.390; CLI-10-24, 72 NRC 451 (2010)
in licensing proceedings, protective orders provide an effective means for safeguarding proprietary information, where the party seeking discovery is not a competitor; CLI-10-24, 72 NRC 451 (2010)
protective orders and in camera proceedings are the customary and favored means of handling disputes that arise in which one party to a proceeding seeks purportedly proprietary information from another; CLI-10-24, 72 NRC 451 (2010)
the use of any proprietary information that is produced is strictly limited to the proceeding for which it is produced, and such information must be promptly returned at the close of this proceeding; LBP-10-23, 72 NRC 692 (2010)
PROTECTIVE ORDERS
in licensing proceedings, protective orders provide an effective means for safeguarding proprietary information, where the party seeking discovery is not a competitor; CLI-10-24, 72 NRC 451 (2010)
petitioners or intervenors may request and, where appropriate, obtain, under protective order or other measures, information withheld from the general public for proprietary or security reasons; CLI-10-24, 72 NRC 451 (2010)
the board issued a protective order governing access to and use of protected information in the correspondence from applicant to NRC Staff regarding the requirements under 10 C.F.R. 52.80(d) and any related documents; CLI-10-24, 72 NRC 451 (2010)
the use of any proprietary information that is produced is strictly limited to the proceeding for which it is produced, and such information must be promptly returned at the close of this proceeding; LBP-10-23, 72 NRC 692 (2010)
PROXIMITY PRESUMPTION
boards apply a proximity-plus test to establish standing in materials cases, where the petitioner must show that the proposed licensing action involves a significant source of radiation that has an obvious potential for offsite consequences; CLI-10-20, 72 NRC 185 (2010)
if petitioner cannot establish the elements of proximity-based standing, then he must establish standing according to traditional standing principles; CLI-10-20, 72 NRC 185 (2010)
in a materials licensing case, petitioner must show more than that he lives or works within a certain distance of the site where materials will be located; CLI-10-20, 72 NRC 185 (2010)

in cases involving ISL uranium mining and other source materials licensing, petitioner must demonstrate injury, causation, and redressability because proximity to the proposed facility alone is not adequate to demonstrate standing; LBP-10-16, 72 NRC 361 (2010)
in proceedings involving nuclear power reactors, petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and redressability if petitioner lives within 50 miles of the proposed facility; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
no proximity presumption applies in source materials cases; LBP-10-16, 72 NRC 361 (2010)
presumption of standing applies in proceedings for nuclear power plant construction permits, operating licenses, or significant amendments thereto; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010); LBP-10-21, 72 NRC 616 (2010)
someone living adjacent to the site for proposed construction of a federally licensed facility has standing to challenge the licensing agency's failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the facility will not be completed for many years; LBP-10-24, 72 NRC 720 (2010)
standing was found for an organization representing three members living in close proximity to decommissioning site, who expressed concern that depleted uranium materials could affect a waterway abutting the property of two members; CLI-10-20, 72 NRC 185 (2010)
PUBLIC COMMENTS
when preparing an environmental assessment, an agency must provide the public with sufficient environmental information, considered in the totality of circumstances, to permit members of the public to weigh in with their views and thus inform the agency decisionmaking process; CLI-10-18, 72 NRC 56 (2010)
PUBLIC INTEREST
Commission review is in the public interest if the decision could affect pending and future license renewal determinations; CLI-10-17, 72 NRC 1 (2010)
QUALITY ASSURANCE PROGRAMS
DOE is required to provide adequate confidence that the geologic repository and it structures, systems, or components will perform satisfactorily in service; LBP-10-22, 72 NRC 661 (2010)
if the performance margins analysis for the high-level waste repository is needed to establish adequate confidence in the total system performance assessment, then it is subject to the quality assurance requirements of 10 C.F.R. 63.142; LBP-10-22, 72 NRC 661 (2010)
the effects of the high-level waste repository QA program can be taken into account in determining the probability and consequences of a feature, event, or process; LBP-10-22, 72 NRC 661 (2010)
the performance margins analysis cannot be used to validate or provide confidence in the total systems performance assessment if its data and models are not qualified under DOE's QA program; LBP-10-22, 72 NRC 661 (2010)
the program for the geologic repository must be applied to all structures, systems, and components that are important to waste isolation and to related activities, defined as including analyses of samples and data; LBP-10-22, 72 NRC 661 (2010)
RADIATION CONTROL PROGRAM
the combined license application must describe the means for controlling and limiting the radioactive effluents and radiation exposures from the proposed nuclear reactors; LBP-10-20, 72 NRC 571 (2010)
RADIATION PROTECTION PROGRAM
applicant must have a program to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable; LBP-10-20, 72 NRC 571 (2010)
DOE need not weigh ALARA considerations outside the geologic repository operations area for which it is responsible; LBP-10-22, 72 NRC 661 (2010)
how a COL applicant intends, through its design, operational organization, and procedures, to comply with relevant substantive radiation protection requirements in 10 C.F.R. Part 20 is governed by 10 C.F.R. 52.79(a)(3); LBP-10-20, 72 NRC 571 (2010)
plans or procedures are a valid means by which radiation exposure may be controlled; LBP-10-20, 72 NRC 571 (2010)
the final safety analysis report must include the kinds and quantities of radioactive materials expected to be produced by low-level radioactive waste 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; LBP-10-20, 72 NRC 571 (2010)
RADIATION PROTECTION STANDARDS
licensees, including Part 63 licensees, are required to use, to the extent practical, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and doses to members of the public that are as low as is reasonably achievable; LBP-10-22, 72 NRC 661 (2010)
RADIATION SAFETY
each licensee must evaluate the extent of radiation hazards that may be present; DD-10-3, 72 NRC 171 (2010)
petitioner alleges that routine unprotected handling of an unshielded neutron source by licensed operators and uncontrolled access by untrained and unlicensed facility visitors to this neutron source violated ALARA requirements; DD-10-3, 72 NRC 171 (2010)
RADIOACTIVE EFFLUENTS
the combined license application must describe the means for controlling and limiting the radioactive effluents and radiation exposures from the proposed nuclear reactors; LBP-10-20, 72 NRC 571 (2010)
the final safety analysis report must include the kinds and quantities of radioactive materials expected to be produced by low-level radioactive waste 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; LBP-10-20, 72 NRC 571 (2010)
RADIOACTIVE RELEASES
only features, events, and processes that produce significant changes in releases or doses within the first 10,000 years after disposal in the high-level waste repository must be included in performance assessments; LBP-10-22, 72 NRC 661 (2010)
RADIOACTIVE WASTE STORAGE
an agency is not authorized to grant conditional approval to plans that do nothing more than promise to do tomorrow what the statute requires today; LBP-10-20, 72 NRC 571 (2010)
applicant's COLA discussion of LLRW management contained no omission where the applicant addressed the closure of the Barnwell LLRW disposal facility, discussed in detail additional waste minimization measures, and committed to build an additional storage facility in accordance with NRC guidelines if further additional storage became necessary; LBP-10-20, 72 NRC 571 (2010)
applicant's combined license application fails to address the management of low-level radioactive waste plan for a longer term than envisioned in the COLA; LBP-10-20, 72 NRC 571 (2010)
detailed design, location, and health impacts information on low-level radioactive waste storage is not required in the combined license application; LBP-10-20, 72 NRC 571 (2010)
low-level radioactive waste contentions were not admissible because of technical defects in the pleadings such as failure to satisfy 10 C.F.R. 2.309(f)(1)(vi), (i), or (ii); LBP-10-20, 72 NRC 571 (2010)
low-level radioactive waste storage information required by 10 C.F.R. 52.79(a)(3) is tied to the COL applicant's particular plans for compliance through design, operational organization, and procedures; LBP-10-20, 72 NRC 571 (2010)
regulations do not dictate the duration of onsite low-level radioactive waste storage capacity; LBP-10-20, 72 NRC 571 (2010)
the fact that an extended low-level radioactive waste storage plan is contingent does not mean that it does not need to comply with 10 C.F.R. 52.79 or that it is subject to a relaxed standard; LBP-10-20, 72 NRC 571 (2010)
the FSAR was configured to accommodate at least 10 years of onsite storage; LBP-10-20, 72 NRC 571 (2010)
there is no prohibition on an applicant using a plan for compliance with section 52.79(a)(3) that includes contingent plans should future low-level radioactive waste storage become necessary; LBP-10-20, 72 NRC 571 (2010)
there is no requirement in section 52.79(a)(3) for applicant's FSAR to include details regarding building materials and high-integrity containers, exact location, or health impacts on employees for the contingent onsite long-term LLRW storage facility; LBP-10-20, 72 NRC 571 (2010)

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RADIOACTIVE WASTE, LOW-LEVEL
- applicant's COLA discussion of LLRW management contained no omission where the applicant addressed the closure of the Barnwell LLRW disposal facility, discussed in detail additional waste minimization measures, and committed to build an additional storage facility in accordance with NRC guidelines if further additional storage became necessary; LBP-10-20, 72 NRC 571 (2010)
- applicant's COLA fails to address the management of low-level radioactive waste plan for a longer term than envisioned in the COLA; LBP-10-20, 72 NRC 571 (2010)
- detailed design, location, and health impacts information on low-level radioactive waste storage is not required in the combined license application; LBP-10-20, 72 NRC 571 (2010)
- LLRW contentions were not admissible because of technical defects in the pleadings such as failure to satisfy 10 C.F.R. 2.309(f)(1)(vi), (i), or (ii); LBP-10-20, 72 NRC 571 (2010)
- LLRW storage information required by 10 C.F.R. 52.79(a)(3) is tied to the COL applicant's particular plans for compliance through design, operational organization, and procedures; LBP-10-20, 72 NRC 571 (2010)
- regulations do not dictate the duration of onsite low-level radioactive waste storage capacity; LBP-10-20, 72 NRC 571 (2010)
- the fact that an extended LLRW storage plan is contingent does not mean that it does not need to comply with 10 C.F.R. 52.79 or that it is subject to a relaxed standard; LBP-10-20, 72 NRC 571 (2010)
- the final safety analysis report must include the kinds and quantities of radioactive materials expected to be produced by LLRW 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; LBP-10-20, 72 NRC 571 (2010)
- there is no prohibition on an applicant using a plan for compliance with section 52.79(a)(3) that includes contingent plans should future low-level radioactive waste storage become necessary; LBP-10-20, 72 NRC 571 (2010)

RADIOLOGICAL EXPOSURE
- applicant shall conduct operations so that the total effective dose equivalent to individual members of the public does not exceed 100 millirems per year; LBP-10-20, 72 NRC 571 (2010)
- applicant shall provide reasonable assurance that the annual dose equivalent to members of the public from planned discharges not exceed 25 millirems to the whole body; LBP-10-20, 72 NRC 571 (2010)
- petitioner's argument that high-explosive munitions could fall onto depleted uranium, pulverizing and igniting the DU and generating aerosols that might travel through the air, providing an inhalation pathway for offsite exposure was contradicted by the Army's statement that it does not use high-impact explosives in the area where DU is present; CLI-10-20, 72 NRC 185 (2010)
- the combined license application must describe the means for controlling and limiting the radioactive effluents and radiation exposures from the proposed nuclear reactors; LBP-10-20, 72 NRC 571 (2010)
- the final safety analysis report must include the kinds and quantities of radioactive materials expected to be produced by low-level radioactive waste 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; LBP-10-20, 72 NRC 571 (2010)

REACTOR COOLING SYSTEMS
- for license renewal, feedwater, core spray, and reactor recirculation outlet nozzles, as part of the reactor coolant pressure boundary, must meet the metal-fatigue requirements for Class 1 components in section III of the ASME Code; CLI-10-17, 72 NRC 1 (2010)

REACTOR DESIGN
- a board could refer a contention relating to a certified design to the Staff for consideration in the design certification rulemaking and hold that contention in abeyance if the contention is otherwise admissible; LBP-10-21, 72 NRC 616 (2010)
- an applicant that references in its combined license application a design for which a design certification application has been docketed but not granted does so at its own risk; LBP-10-20, 72 NRC 571 (2010)
- applicant's change of reactor design constitutes new and materially different information for the purposes of filing a new contention; LBP-10-17, 72 NRC 501 (2010)

in making the findings required for issuance of a combined license, the Commission shall treat as resolved those matters resolved in connection with the issuance or renewal of a design certification rule; LBP-10-21, 72 NRC 616 (2010)
petitioner failed to identify any statute or NRC regulation to support its theory that applicant may not revise its application to include a different reactor design; LBP-10-17, 72 NRC 501 (2010)
the Commission generally refuses to modify, rescind, or impose new requirements on reactor design certification information, except through rulemaking; LBP-10-21, 72 NRC 616 (2010)
to the degree that the general precept that a rule, including a design certification, cannot be challenged in an adjudication might be seen as placing such matters outside the scope of the proceeding; LBP-10-21, 72 NRC 616 (2010)
REASONABLE ASSURANCE
the license renewal applicant's use of an aging management program identified in the Generic Aging Lessons Learned Report constitutes reasonable assurance that it will manage the targeted aging effect during the renewal period; CLI-10-17, 72 NRC 1 (2010)
REBUTTABLE PRESUMPTION
absence of perfect compliance by licensee does not rebut the presumption of compliance or support admission of a contention that the application does not satisfy 10 C.F.R. 54.29(a), but a consistent, longstanding, and continuing pattern of problems in a specific area that is relevant to managing aging equipment will; LBP-10-15, 72 NRC 257 (2010)
RECORD OF DECISION
there is no per se regulatory bar that precludes the Staff from using the hearing process to clarify the administrative record supporting its final EA, and that record, along with any adjudicatory decision, becomes, in effect, part of the final environmental document; CLI-10-18, 72 NRC 56 (2010)
there must be a finding that something is remote and speculative to preclude it from further analysis, and there must be support in the agency's record of decision to justify this finding; LBP-10-14, 72 NRC 101 (2010)
RECUSAL
a judge should disqualify himself if he has personal knowledge of disputed evidentiary facts concerning the proceeding; CLI-10-22, 72 NRC 202 (2010)
if a licensing board member declines to grant a party's recusal motion, the motion is referred to the Commission to determine the sufficiency of the grounds alleged; CLI-10-22, 72 NRC 202 (2010)
that an unreasonable person, focusing on only one aspect of the story, might perceive a risk of bias is irrelevant; CLI-10-22, 72 NRC 202 (2010)
the disqualification standard under 28 U.S.C. § 455 is not directed to administrative judges, but the Commission and its adjudicatory boards have applied it in assessing a motion for disqualification under 10 C.F.R. 2.313, and it provides a helpful framework for such an assessment; CLI-10-22, 72 NRC 202 (2010)
the proper inquiry under 28 U.S.C. § 455 is made from the perspective of a reasonable person, knowing all the circumstances; CLI-10-22, 72 NRC 202 (2010)
the standard for disqualification of a judge under 28 U.S.C. § 455 is whether the reasonable person who knows all the circumstances, would harbor doubts about the judge's impartiality; CLI-10-22, 72 NRC 202 (2010)
REDRESSABILITY
to establish standing, petitioner must show that its alleged injury in fact could be cured or alleviated by some action of the tribunal; LBP-10-16, 72 NRC 361 (2010)
REFERRAL OF RULING
contention raising question of whether a quantitative as opposed to qualitative analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary is referred to the Commission as a novel issue; LBP-10-15, 72 NRC 257 (2010)
decisions that involve significant and novel issues, the resolution of which would materially advance the orderly disposition of proceedings, should be referred to the Commission; LBP-10-20, 72 NRC 571 (2010)
licensing boards are to refer novel issues of law to the Commission; LBP-10-15, 72 NRC 257 (2010)

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REGULATIONS
absent a waiver, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications; LBP-10-16, 72 NRC 361 (2010)
although Part 40 generally applies to in situ leach mining, Appendix A to Part 40, including Criterion 1, was designed to address the problems related to mill tailings and not problems related to injection mining; LBP-10-16, 72 NRC 361 (2010)
contentions that attack a Commission rule, or that seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, are inadmissible; LBP-10-21, 72 NRC 616 (2010)
Council on Environmental Quality regulations are entitled to substantial deference by NRC; LBP-10-15, 72 NRC 257 (2010)
Council on Environmental Quality regulations receive substantial deference from federal courts in interpreting the requirements of NEPA; LBP-10-16, 72 NRC 361 (2010); LBP-10-24, 72 NRC 720 (2010)
guidance documents do not create binding legal requirements; CLI-10-24, 72 NRC 451 (2010)
handling of confidential commercial or financial (proprietary) information that has been submitted to the agency is governed by 10 C.F.R. 2.390; CLI-10-24, 72 NRC 451 (2010)
it is NRC stated policy to take into account Council on Environmental Quality regulations voluntarily, subject to some conditions; CLI-10-18, 72 NRC 56 (2010)
motions to reopen a proceeding to introduce an entirely new contention must successfully navigate at least nineteen different regulatory factors under 10 C.F.R. 2.326, 2.309(c), and 2.309(f)(1); LBP-10-19, 72 NRC 529 (2010)
no rule or regulation of the Commission concerning the licensing of production and utilization facilities is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; LBP-10-14, 72 NRC 101 (2010)
Staff guidance documents are not legally binding, but can be useful in instances where legal authority is lacking; LBP-10-16, 72 NRC 361 (2010)
summary disposition rules 2.1205 and 2.710 are substantially similar; LBP-10-20, 72 NRC 571 (2010)
the central purpose of Part 51 rules is to allow NRC to comply with NEPA by identifying and evaluating environmental impacts that are generic to reactor license renewal proceedings and then allowing applicant and NRC to dispense with site-specific evaluations of such environmental impacts in situations covered by the generic analysis; LBP-10-15, 72 NRC 257 (2010)
the Commission has an announced policy to take account of Council on Environmental Quality regulations voluntarily, subject to certain conditions; LBP-10-24, 72 NRC 720 (2010)
the principal regulatory standards for in situ leach applications are 10 C.F.R. 40.32(c) and (d), which mandate protection of public health and safety; LBP-10-16, 72 NRC 361 (2010)
the standard review plan provides guidance but does not impose requirements on license renewal applicants; CLI-10-17, 72 NRC 1 (2010)
REGULATIONS, INTERPRETATION
a licensing board's interpretation of 10 C.F.R. 54.3, 54.21, 54.29 is challenged; CLI-10-17, 72 NRC 1 (2010)
a text should be construed so that effect is given to all of its provisions, so no part will be inoperative or superfluous, void or insignificant; LBP-10-22, 72 NRC 661 (2010)
although the phrase "possession, custody, or control" appears in 10 C.F.R. 2.336(a)(2)(i), 2.704(a)(2), and 2.707(a)(1)), no NRC decision has ever provided guidance as to what constitutes "control"; LBP-10-23, 72 NRC 692 (2010)
section 54.29(a) speaks of both past and future actions, referring specifically to those that have been or will be taken with respect to managing the effects of aging and time-limited aging analyses; CLI-10-17, 72 NRC 1 (2010)
the amended late-filed contentions rule, 10 C.F.R. 2.309(f)(2), is not intended to alter the standards in section 2.714(a) of its rules of practice as interpreted by NRC case law; LBP-10-17, 72 NRC 501 (2010)
the language of 10 C.F.R. 52.79(a)(4) is contrasted with the "means" language of 10 C.F.R. 52.79(a)(3); LBP-10-20, 72 NRC 571 (2010)

the phrase "possession, custody, or control" as found in the Federal Rules of Civil Procedure and 10 C.F.R. 2.336(a) is in the disjunctive, and thus only one of the enumerated requirements needs to be met; LBP-10-23, 72 NRC 692 (2010)
the plain language of 10 C.F.R. 63.305 does not say anything about analyzing future climate based upon the historical geological record; LBP-10-22, 72 NRC 661 (2010)
the relevance standard of 10 C.F.R. 2.336 is more flexible than the relevance standard of Fed. R. Evid. 401; LBP-10-23, 72 NRC 692 (2010)
the sole issue under 10 C.F.R. 50.5(a)(2) is whether a person knew the information was materially incomplete and inaccurate at the time it was submitted to the NRC; CLI-10-23, 72 NRC 210 (2010)
the term "document" as used in 10 C.F.R. 2.336 includes computer models and associated electronic inputs, outputs, data, and software; LBP-10-23, 72 NRC 692 (2010)
the term "document" as used in 10 C.F.R. 2.336 is not limited to paper documents and it refers to information stored on any medium or form, including electronically stored information; LBP-10-23, 72 NRC 692 (2010)
there is no prohibition on an applicant using a plan for compliance with 10 C.F.R. 52.79(a)(3) that includes contingent plans should future low-level radioactive waste storage become necessary; LBP-10-20, 72 NRC 571 (2010)
whether a feature, event, or process must be included in the performance assessment for the period after 10,000 years is governed by 10 C.F.R. 63.342, not by section 63.102(j); LBP-10-22, 72 NRC 661 (2010)
words of a statute must be read in their context and with a view to their place in the overall statutory scheme; LBP-10-20, 72 NRC 571 (2010)
REINSTATEMENT OF PERMIT
reinstatement of construction permits did not authorize construction of reactors, but rather was to place the facility in a terminated plant status; CLI-10-26, 72 NRC 474 (2010)
REMAND
if a board on remand were to rule in petitioners' favor regarding the admissibility of one contention, then the board should also reconsider its prior ruling that related contentions were admissible; CLI-10-21, 72 NRC 197 (2010)
if appellant had submitted an offer of proof, indicating what rebuttal evidence it would have offered to the board, then the Commission might have some basis for determining whether that evidence would be substantial enough to justify a remand to the Board; CLI-10-23, 72 NRC 210 (2010)
proceeding will remain open during the pendency of a remand, during which time, petitioners are free to submit a motion to reopen the record should they seek to address any genuinely new issues related to the license renewal application that previously could not have been raised; CLI-10-17, 72 NRC 1 (2010)
REOPENING A RECORD
extended power uprate proceeding that has been terminated may not be reopened; CLI-10-17, 72 NRC 1 (2010)
once the record of a proceeding is closed, new information may not be considered in the proceeding unless the reopening standards of this section are met; LBP-10-21, 72 NRC 616 (2010)
petitioners seeking to introduce new contentions after the board has denied their initial petition to intervene need to address the reopening standards; LBP-10-21, 72 NRC 616 (2010)
standards are discussed and analyzed; LBP-10-21, 72 NRC 616 (2010)
to justify reopening the record to admit a new contention, the moving papers must be strong enough, in the light of any opposing filings, to avoid summary disposition, and the new information must be significant and plausible enough to require reasonable minds to inquire further; LBP-10-21, 72 NRC 616 (2010)
when the contested portion of a proceeding was terminated following an unchallenged merits determination in favor of applicant regarding the proceeding's sole admitted contention, the board's focus must be on the requirements applicable to reopening a closed record set out in 10 C.F.R. 2.326; LBP-10-21, 72 NRC 616 (2010)
REPLY BRIEFS
a motion to file late should generally be denied, except under extraordinary conditions; LBP-10-21, 72 NRC 616 (2010)

arguments and alleged facts should focus on the legal, factual, or logical arguments presented in the answers; LBP-10-19, 72 NRC 529 (2010)
because appellant submitted no offer of proof, its case could be so weak that the denial of a right to reply by the licensing board would have been harmless error; CLI-10-23, 72 NRC 210 (2010)
petitioner's standing showing can be corrected or supplemented to cure deficiencies by means of its reply pleading; LBP-10-21, 72 NRC 616 (2010)
REQUEST FOR ACTION
petitioner's request for action concerning deficiencies in licensee's employee concerns program is denied; DD-10-1, 72 NRC 149 (2010)
petitioner's request that unescorted access authorization be restored so that he could perform his accepted job tasks with all record of denial removed from any and all records is denied; DD-10-2, 72 NRC 163 (2010)
petitioner's requests for enforcement action for alleged regulatory, criminal, and ethical misconduct and coverup by NRC Staff is denied; DD-10-3, 72 NRC 171 (2010)
to the extent petitioner believes that NRC Staff has overlooked facts indicating an inadequate safety culture as a matter separate and apart from license renewal, then its remedy is to direct Staff's attention to the supporting facts via a petition for enforcement action; CLI-10-27, 72 NRC 481 (2010)
RESEARCH REACTORS
petitioner alleges failure to conduct safety review of the modification of the controlled access area by the addition of an undocumented roof access for a siphon breaker experiment; DD-10-3, 72 NRC 171 (2010)
REVIEW, DISCRETIONARY
Commission denies petitions for interlocutory review of a licensing board decision that admitted new and amended contentions; CLI-10-30, 72 NRC 564 (2010)
parties should not seek review by invoking the grounds under which the Commission might exercise its supervisory authority; CLI-10-30, 72 NRC 564 (2010)
petitioner must demonstrate that the issue for which it seeks review 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 affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-10-30, 72 NRC 564 (2010)
the Commission grants review only in extraordinary circumstances; CLI-10-30, 72 NRC 564 (2010)
the Commission may, at its discretion, grant a party's request for interlocutory review of a board decision; CLI-10-30, 72 NRC 564 (2010)
the mere potential for legal error in a contention admissibility decision is not a ground for review; CLI-10-30, 72 NRC 564 (2010)
RISK
See Assumption of Risk
RULE OF REASON
NEPA requirements are tempered by a practical rule of reason; CLI-10-22, 72 NRC 202 (2010)
the National Environmental Policy Act excludes consideration of demand-side management if the proposed new plant is intended to be a merchant plant, selling power on the open market, because it is not feasible for licensee to engage in demand-side management; CLI-10-21, 72 NRC 197 (2010)
the NEPA hard-look doctrine is subject to a rule of reason that the Commission has interpreted as obligating the agency to consider all reasonable alternatives to the proposed action; LBP-10-14, 72 NRC 101 (2010)
the range of alternatives that must be considered need not extend beyond those reasonably related to the purposes of the project and a rule of reason necessarily informs that choice; CLI-10-18, 72 NRC 56 (2010)
RULEMAKING
challenges to the Waste Confidence Rule must be made in the context of a rulemaking, not in the context of an adjudicative proceeding; CLI-10-19, 72 NRC 98 (2010)
if petitioners believe that the specification for climate change no longer provides a reasonable basis for demonstrating compliance based on new scientific evidence, they can petition NRC to amend the rules; LBP-10-22, 72 NRC 661 (2010)

if petitioners or intervenors are dissatisfied with NRC's generic approach to a problem, their remedy lies in the rulemaking process, not in adjudication; CLI-10-19, 72 NRC 98 (2010)
once a licensing proceeding has been closed, petitioners will still have the opportunity to raise issues by filing a petition under 10 C.F.R. 2.802; CLI-10-17, 72 NRC 1 (2010)
the Commission generally refuses to modify, rescind, or impose new requirements on reactor design certification information, unless through rulemaking; LBP-10-21, 72 NRC 616 (2010)
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; LBP-10-17, 72 NRC 501 (2010)
under longstanding NRC policy, licensing boards should not accept in individual license proceedings contentions that are or are about to become the subject of general rulemaking by the Commission; CLI-10-19, 72 NRC 98 (2010)
RULES OF PRACTICE
a board's determination of standing does not depend on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible; LBP-10-16, 72 NRC 361 (2010)
a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed de novo; CLI-10-24, 72 NRC 451 (2010)
a board's standing analysis must avoid the familiar trap of confusing the standing determination with the assessment of a petitioner's case on the merits; LBP-10-16, 72 NRC 361 (2010)
a contention based on new information will be considered timely if it is filed within 30 days of the availability of the new information; LBP-10-14, 72 NRC 101 (2010)
a contention challenging applicant's environmental report can be superseded by the subsequent issuance of licensing-related documents, whether a draft environmental impact statement or an applicant's response to a request for additional information; LBP-10-14, 72 NRC 101 (2010)
a contention filed within 30 days of the issuance of a document that legitimately undergirds the contention would be timely and presumptively meet the good cause requirement; CLI-10-18, 72 NRC 56 (2010)
a filing that was 3 days late, which the board characterized as not excessively late, was accepted based on findings that intervenor offered a reasonable explanation for the delay and the delay did not prejudice any of the other parties; LBP-10-21, 72 NRC 616 (2010)
a motion to file late should generally be denied, except under extraordinary conditions; LBP-10-21, 72 NRC 616 (2010)
a motion to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the criteria of 10 C.F.R. 2.326(a) have been satisfied, including addressing each of the reopening criteria separately with a specific explanation of why it has been met; LBP-10-21, 72 NRC 616 (2010)
a new contention may be filed after the initial docketing with leave of the presiding officer upon a showing on three factors; LBP-10-17, 72 NRC 501 (2010)
a party at risk of filing out of time can request an extension, doing so well before the time specified expires; LBP-10-21, 72 NRC 616 (2010)
a party is excused from producing a document if the document is publicly available and if the party specifies where the document may be found; LBP-10-23, 72 NRC 692 (2010)
a party may comply by merely providing a description by category and location of all documents subject to mandatory disclosure; LBP-10-23, 72 NRC 692 (2010)
a petition for review and request for hearing must include a showing that petitioner has standing and that the board should consider the nature of the petitioner's right under the AEA or NEPA to be made a party to the proceeding, the nature and extent of petitioner's property, financial, or other interest in the proceeding, and the possible effect of any decision or order that may be issued in the proceeding on the petitioner's interest; LBP-10-16, 72 NRC 361 (2010)
a petition to waive a Commission regulation can be granted only in unusual and compelling circumstances; LBP-10-22, 72 NRC 661 (2010)

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a prima facie showing merely requires the presentation of enough information to allow a board to infer (absent disproof) that special circumstances exist to support a rule waiver; LBP-10-15, 72 NRC 257 (2010)

a reply may include arguments and alleged facts that are focused on the legal or logical arguments presented in the answers; LBP-10-19, 72 NRC 529 (2010)

a SAMA analysis contention was found to be inadmissible because it lacked supporting information regarding the relative costs and benefits of that proposed alternative; LBP-10-15, 72 NRC 257 (2010)

a single sentence labeled a contention, with no reference to the six elements of 10 C.F.R. 2.309(f)(1) does not make an admissible contention; LBP-10-16, 72 NRC 361 (2010)

a timely motion to reopen may be denied if it raises issues that are not of major significance to plant safety whereas a nontimely motion may be granted if it raises an issue of sufficient gravity; LBP-10-21, 72 NRC 616 (2010)

absent a waiver, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)

absent extreme circumstances, the Commission will not consider on appeal either new arguments or new evidence supporting the contentions which a board never had the opportunity to consider; CLI-10-21, 72 NRC 197 (2010)

although a board may view petitioner's supporting information in a light favorable to the petitioner, petitioner (not the board) is required to supply all of the required elements for a valid intervention petition; LBP-10-15, 72 NRC 257 (2010); CLI-10-20, 72 NRC 185 (2010); LBP-10-16, 72 NRC 361 (2010)

although a motion to reopen must be timely, an exceptionally grave issue may be considered even if the motion is not timely; LBP-10-19, 72 NRC 529 (2010)

although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 1 (2010)

although interlocutory appeal is denied, the Commission exercises its inherent supervisory authority over adjudications to take sua sponte review of a board order; CLI-10-27, 72 NRC 481 (2010)

although the obligations under NEPA fall to the agency and therefore the NRC Staff, petitioners are required to raise environmental objections based on the applicant's environmental report; LBP-10-15, 72 NRC 257 (2010)

although the phrase "possession, custody, or control" appears in 10 C.F.R. 2.336(a)(2)(i), 2.704(a)(2), and 2.707(a)(1)), no NRC decision has ever provided guidance as to what constitutes "control"; LBP-10-23, 72 NRC 692 (2010)

amicus curiae briefs are contemplated only after the Commission grants a petition for review, not briefs supporting or opposing petitions for review; CLI-10-17, 72 NRC 1 (2010)

an appeal as of right by the NRC Staff is permitted on the question of whether a request for access to sensitive unclassified nonsafeguards information should have been denied in whole or in part; CLI-10-24, 72 NRC 451 (2010)

an entity seeking to intervene on behalf of its members must show that it has an individual member who can fulfill all the necessary standing elements and who has formally authorized the organization to represent his or her interests; LBP-10-21, 72 NRC 616 (2010)

an individual petitioner may not request to intervene in his or her own right while simultaneously authorizing other petitioners to represent his or her interests in the proceeding; LBP-10-16, 72 NRC 361 (2010)

an order denying a petition to intervene and/or request for hearing may be appealed to the Commission on the question of whether the petition and/or request should have been granted; CLI-10-20, 72 NRC 185 (2010)

an organization asserting representational standing must demonstrate that the interest of at least one of its members will be harmed and the member would have standing in his or her own right, identify that member by name and address, and demonstrate that the organization is authorized to request a hearing on behalf of that member; LBP-10-16, 72 NRC 361 (2010)

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an organization seeking to intervene in its own right must allege that the challenged action will cause a cognizable injury to its interests or to the interests of its members; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
an untimely motion to reopen must demonstrate that the issue raised is not merely significant but exceptionally grave; LBP-10-21, 72 NRC 616 (2010)
analysis of a motion to compel the mandatory disclosure of information under 10 C.F.R. 2.336(a) is contingent on six factors; LBP-10-23, 72 NRC 692 (2010)
any contention that falls outside the specified scope of the proceeding is inadmissible; LBP-10-17, 72 NRC 501 (2010)
any doubt as to the existence of a genuine issue of material fact is resolved against the proponent of summary disposition; LBP-10-20, 72 NRC 571 (2010)
any potential harm associated with petitioner's use of water from a water source connecting to a mining site is fairly traceable to the proposed action; LBP-10-16, 72 NRC 361 (2010)
appellate briefs amicus curiae are welcomed from parties in other Commission adjudications that have presented similar issues; CLI-10-17, 72 NRC 1 (2010)
applicant's "control" of computer models prepared by and in possession of a contractor is illustrated by the fact that if NRC Staff requested these documents, applicant could obtain and provide them; LBP-10-23, 72 NRC 692 (2010)
applicant's change of reactor design constitutes new and materially different information for the purposes of filing a new contention; LBP-10-17, 72 NRC 501 (2010)
applicant's claim that computer models should be excused from the mandatory disclosure requirements because they entail proprietary information is rejected; LBP-10-23, 72 NRC 692 (2010)
availability, not possession, custody, or control, is the criterion for the NRC Staff's mandatory disclosure responsibilities; LBP-10-23, 72 NRC 692 (2010)
because it disfavors piecemeal appeals, the Commission will grant interlocutory review only in extraordinary circumstances; CLI-10-29, 72 NRC 556 (2010)
because petitioner's circumstances may change from one proceeding to the next, it is important that the presiding officer have up-to-date information regarding any standing claims; LBP-10-21, 72 NRC 616 (2010)
because the burden is on the summary disposition movant, the board must examine the record in the light most favorable to the nonmoving party and give the nonmoving party the benefit of all favorable inferences that can be drawn from the evidence; LBP-10-20, 72 NRC 571 (2010)
boards apply a proximity-plus test to establish standing in materials cases, where the petitioner must show that the proposed licensing action involves a significant source of radiation that has an obvious potential for offsite consequences; CLI-10-20, 72 NRC 185 (2010)
boards are obliged to evaluate the timeliness of a proposed contention even if no party raises the issue; LBP-10-17, 72 NRC 501 (2010)
boards are to construe intervention petitions in favor of the petitioner; LBP-10-21, 72 NRC 616 (2010)
boards must balance eight factors in evaluating nontimely intervention petitions, hearing requests, and contentions; LBP-10-24, 72 NRC 720 (2010)
board's role in considering a petition for waiver under 10 C.F.R. 2.335, is limited to deciding whether petitioner has made a prima facie showing of special circumstances that would support a waiver; LBP-10-15, 72 NRC 257 (2010)
by defining significantly different information in the draft EIS as a permissible basis for filing a new contention, the Commission has in effect concluded that such new information is good cause for filing a new contention; LBP-10-24, 72 NRC 720 (2010)
consideration of pending issues will not be postponed until the resolution of other issues unrelated to the adjudication; CLI-10-17, 72 NRC 1 (2010)
contention admissibility requirements are deliberately strict, and any contention that does not satisfy them will be rejected; CLI-10-21, 72 NRC 197 (2010)
contention raising question of whether a quantitative as opposed to qualitative analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary is referred to the Commission as a novel issue; LBP-10-15, 72 NRC 257 (2010)

contention that the environmental report is based on incomplete information because a new earthquake fault has been discovered within 600 meters of nuclear reactors and the results of studies concerning the new fault will be available in the near term is admissible; LBP-10-15, 72 NRC 257 (2010)
contentions may be amended or new contentions filed, with permission from the presiding officer, if petitioner shows that information on which the contention is based was not previously available and is materially different than information previously available and the contention has been submitted in a timely fashion based on the availability of the subsequent information; CLI-10-18, 72 NRC 56 (2010)
contentions must meet six admissibility requirements; LBP-10-14, 72 NRC 101 (2010)
contentions ought to be interpreted in light of the required specificity, so that adjudicators and parties need not search out broader meanings than were clearly intended; LBP-10-16, 72 NRC 361 (2010)
contentions raising legal issues, like fact-based contentions, must fall within the allowable scope of the proceeding to be admissible; LBP-10-17, 72 NRC 501 (2010)
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-10-21, 72 NRC 616 (2010)
contentions that attack a Commission rule, or that seeks to litigate a matter that is, or clearly is about to become, the subject of a rulemaking, are inadmissible; LBP-10-21, 72 NRC 616 (2010)
contentions that challenge applicable statutory requirements or the basic structure of the agency's regulatory process are inadmissible; LBP-10-21, 72 NRC 616 (2010)
contentions that raise issues of law as well as contentions that raise issues of fact are permitted; LBP-10-17, 72 NRC 501 (2010)
contentions that simply state the petitioner's views about what regulatory policy should be do not present a litigable issue; LBP-10-21, 72 NRC 616 (2010)
counsel's alleged unfamiliarity with the agency's rules of practice or counsel's asserted busy schedule are not satisfactory explanations for late filings; LBP-10-21, 72 NRC 616 (2010)
disclosure is not required if the burden or expense of the proposed discovery outweighs its likely benefit; LBP-10-23, 72 NRC 692 (2010)
discretionary Commission review of a presiding officer's initial decision is allowed under 10 C.F.R. 2.341(b)(1); CLI-10-17, 72 NRC 1 (2010)
documents are deemed to be within the control of a party if the party has the right to obtain the documents on demand or if it is held by the party's attorney, expert, insurance company, accountant, or agent; LBP-10-23, 72 NRC 692 (2010)
each party to a proceeding must automatically disclose and provide all documents and data compilations in their possession, custody, or control that are relevant to the admitted contentions, without waiting for a party to file a discovery request; LBP-10-23, 72 NRC 692 (2010)
even if a petitioner is unable to show that the NRC Staff's NEPA document differs significantly from the environmental report, it may still be able to meet the late-filed contention requirements; LBP-10-24, 72 NRC 720 (2010)
existence of a prima facie case is determined based on the sufficiency of the movant's assertions and informational/evidentiary support alone; LBP-10-15, 72 NRC 257 (2010)
factors (vii) and (viii) of 10 C.F.R. 2.309(c)(1) are generally considered to have the most significance in the balancing process in instances in which there are no other parties or ongoing related proceedings; LBP-10-21, 72 NRC 616 (2010)
failure to comply with any of the contention pleading requirements is grounds for rejecting a contention; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010); LBP-10-21, 72 NRC 616 (2010)
for a contention regarding environmental impacts of spent fuel storage to be within the scope of an operating license renewal proceeding, petitioner must obtain a waiver under 10 C.F.R. 2.335(d); LBP-10-15, 72 NRC 257 (2010)
for a request for hearing and petition to intervene to be granted, a petitioner must establish that it has standing and propose at least one admissible contention; LBP-10-15, 72 NRC 257 (2010)
for factual disputes, petitioner must present sufficient information to show a genuine dispute; CLI-10-20, 72 NRC 185 (2010)
generalized claims that are vague and insufficiently supported and do not tend to establish any connection with the proposed license or potential harm to petitioner are insufficient to support a contention; CLI-10-20, 72 NRC 185 (2010)

given that consideration of terrorist attacks is part of the NRC's NEPA obligations in the Ninth Circuit, the issue of whether terrorist attacks have been fully considered in the NEPA analysis for a power plant in that jurisdiction is plainly material to the decision the NRC must make; LBP-10-15, 72 NRC 257 (2010)
good cause for late filing is the most important factor, and failure to meet this factor considerably enhances the burden of showing that the other factors justify admission of a late-filed petition; CLI-10-17, 72 NRC 1 (2010); LBP-10-21, 72 NRC 616 (2010); LBP-10-24, 72 NRC 720 (2010)
if a contention based on new information fails to satisfy the three-part test for admission, it may be evaluated under section 2.309(c); LBP-10-24, 72 NRC 720 (2010)
if a contention header uses a particular phrase, but the statement of the contention does not refer to the phrase or regulation, then the board may interpret the contention in accordance with the express statement of the contention; LBP-10-15, 72 NRC 257 (2010)
if a contention meets the 10 C.F.R. 2.309(f)(2) criteria, it is timely and the intervenor proffering the contention need not also make a showing under 10 C.F.R. 2.309(c); LBP-10-14, 72 NRC 101 (2010)
if a motion to reopen and the proposed new contention are based on material information that was not previously available, then it qualifies as timely; LBP-10-19, 72 NRC 529 (2010)
if a motion to reopen relates to a contention not previously in controversy among the parties, movant must meet the late-filing requirements of section 2.309(c); LBP-10-21, 72 NRC 616 (2010)
if a requested document or data compilation is publicly available, then a citation to the document and a description of where it may be publicly obtained is sufficient; LBP-10-23, 72 NRC 692 (2010)
if applicant cures the omission on which a contention is based, the contention will become moot; LBP-10-16, 72 NRC 361 (2010)
if good cause for a late filing is not shown, the board may still permit the late filing, but the petitioner must make a strong showing on the other factors; LBP-10-24, 72 NRC 720 (2010)
if petitioner cannot establish the elements of proximity-based standing, then he must establish standing according to traditional standing principles; CLI-10-20, 72 NRC 185 (2010)
if petitioner has made a prima facie showing of special circumstances for rule waiver, then the board certifies the matter to the Commission; LBP-10-15, 72 NRC 257 (2010); LBP-10-22, 72 NRC 661 (2010)
if petitioner makes a prima facie allegation that the application omits information required by law, it necessarily presents a genuine dispute with applicant and raises an issue plainly material to an essential finding of regulatory compliance needed for license issuance; LBP-10-16, 72 NRC 361 (2010)
if petitioners believe that the specification for climate change no longer provides a reasonable basis for demonstrating compliance based on new scientific evidence, they can petition NRC to amend the rules; LBP-10-22, 72 NRC 661 (2010)
if there is no prima facie showing for a rule waiver, the board may not further consider the matter; LBP-10-22, 72 NRC 661 (2010)
imminent mootness of an issue has been cause for taking interlocutory review if the issue sought to be reviewed would have become moot by the time the board issued a final decision; CLI-10-29, 72 NRC 556 (2010)
in a materials licensing case, petitioner must show more than that he lives or works within a certain distance of the site where materials will be located; CLI-10-20, 72 NRC 185 (2010)
in a Subpart L proceeding, the board must apply the summary disposition standard set forth in Subpart G; LBP-10-20, 72 NRC 571 (2010)
in a Subpart L proceeding, the mandatory disclosure provisions of 10 C.F.R. 2.336 apply; CLI-10-24, 72 NRC 451 (2010); CLI-10-25, 72 NRC 469 (2010)
in addressing the section 2.309(c)(1) factors, failure to provide any specific discussion of most of these items or the weight they should be given in the balance is a potentially fatal omission; LBP-10-21, 72 NRC 616 (2010)
in cases involving ISL uranium mining and other source materials licensing, petitioner must demonstrate injury, causation, and redressability because proximity to the proposed facility alone is not adequate to demonstrate standing; LBP-10-16, 72 NRC 361 (2010)
in cases involving possible construction or operation of a nuclear power reactor, proximity to the proposed facility has been an essential element in establishing standing; LBP-10-21, 72 NRC 616 (2010)

in cases not involving nuclear power reactors, whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; CLI-10-20, 72 NRC 185 (2010)
in determining whether an individual or organization should be granted party status based on standing of right, NRC applies contemporaneous judicial standing concepts; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010); LBP-10-21, 72 NRC 616 (2010)
in determining whether petitioner has established standing, boards may construe the petition in favor of the petitioner; LBP-10-15, 72 NRC 257 (2010)
in light of the requirements that any new contention be based on material information that was not previously available, the timeliness determination required under 10 C.F.R. 2.309(f)(2) and the section 2.326(a) reopening standard can be closely equated; LBP-10-21, 72 NRC 616 (2010)
in order to raise a timely contention, a party must piece together disparate shreds of information that, standing alone, have little apparent significance; CLI-10-27, 72 NRC 481 (2010)
in proceedings involving nuclear power reactors, petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and redressability if petitioner lives within 50 miles of the proposed facility; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
in the context of a safety contention, petitioner must show a waiver of the regulation is necessary to reach a significant safety problem; LBP-10-15, 72 NRC 257 (2010)
in the event of some 11th-hour unforeseen development, a party may tender a document belatedly, but the tender must be accompanied by a motion for leave to file out-of-time which satisfactorily explains not only the reason for the lateness, but also why a motion for an extension of time could not have been seasonably submitted; CLI-10-26, 72 NRC 474 (2010)
in the interest of efficient case management and prompt resolution of adjudications, the Commission has generally enforced the 10-day deadline for appeals strictly, excusing it only in unavoidable and extreme circumstances; CLI-10-26, 72 NRC 474 (2010)
information required to show standing includes the nature of petitioner's right under a relevant statute to be made a party, the nature and extent of petitioner's property, financial, or other interest in the proceeding, and the possible effect of any decision or order that might be issued on petitioner's interest; LBP-10-15, 72 NRC 257 (2010)
interlocutory review is granted only in extraordinary circumstances; CLI-10-30, 72 NRC 564 (2010)
interlocutory review is granted where the issues are significant, have potentially broad impact, and may well recur in the likely license renewal proceedings for other plants; CLI-10-27, 72 NRC 481 (2010)
interlocutory review will be granted only if petitioner demonstrates that the issue for which it seeks review 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 affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-10-30, 72 NRC 564 (2010)
intervenor cannot establish good cause for filing a late contention when the information on which the contention is based was publicly available for some time prior to the filing of the contention; CLI-10-27, 72 NRC 481 (2010)
intervenor is entitled to submit a new safety contention, with leave of the board, upon three showings; CLI-10-17, 72 NRC 1 (2010)
intervenor must comply with procedural requirements for the filing of new or amended contentions, including the requirement that the contentions be submitted in a timely fashion based on the availability of the subsequent information; LBP-10-17, 72 NRC 501 (2010)
intervenor's appeal 3 days out of time was accepted when applicants' motion to strike failed to even hint at prejudice; LBP-10-21, 72 NRC 616 (2010)
intervenors must move for leave to file a timely new or amended contention under 10 C.F.R. 2.309(c), (f)(2); LBP-10-14, 72 NRC 101 (2010)
it is a contention's proponent, not the licensing board, that is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for the admission of contentions; LBP-10-24, 72 NRC 720 (2010)
it is enough that petitioner has demonstrated a realistic threat of sustaining a direct injury as a result of contaminated groundwater flowing from the site to his property; LBP-10-16, 72 NRC 361 (2010)

it is generally not sufficient to seek to establish standing in a proceeding by merely cross-referencing the showing made in another proceeding, rather than making a new presentation or at least providing a submission that updates the factual information that was provided previously; LBP-10-21, 72 NRC 616 (2010)
it is within Commission discretion to grant interlocutory review; CLI-10-29, 72 NRC 556 (2010)
it might be sufficient to allow petitioner to rely on a prior standing demonstration if that prior demonstration is specifically identified and shown to correctly reflect the current status of petitioner's standing; LBP-10-21, 72 NRC 616 (2010)
legal issues are reviewed de novo on appeal, but the Commission generally defers to board findings of fact, unless they are clearly erroneous; CLI-10-17, 72 NRC 1 (2010)
licensing board decisions denying a petition for waiver are interlocutory and not reviewable until the board has issued a final decision resolving the case, unless a party seeking review shows that one of the grounds for interlocutory review has been met; CLI-10-29, 72 NRC 556 (2010)
licensing boards and the Commission have considered the late-filing criteria even in cases where the factors were not fully addressed by petitioners and/or the NRC Staff or were not addressed at all; LBP-10-24, 72 NRC 720 (2010)
licensing boards are to refer novel issues of law to the Commission; LBP-10-15, 72 NRC 257 (2010)
licensing boards have authority to set a proceeding's schedule and to ensure compliance with that schedule; LBP-10-21, 72 NRC 616 (2010)
licensing boards have substantial authority to regulate hearing procedures; LBP-10-21, 72 NRC 616 (2010)
licensing boards must assess intervention petitions to determine whether elements for standing are met even though if there are no objections to petitioner's standing; LBP-10-21, 72 NRC 616 (2010)
mandatory disclosure is the only form of discovery allowed in Subpart L proceedings, and all other forms are expressly prohibited; LBP-10-23, 72 NRC 692 (2010)
mandatory disclosures are updated every month; LBP-10-23, 72 NRC 692 (2010)
motions filed under 10 C.F.R. 2.323 are not a legitimate means to bring challenges to board decisions to the Commission; CLI-10-28, 72 NRC 553 (2010)
motions to reopen a proceeding to introduce an entirely new contention must successfully navigate at least nineteen different regulatory factors under 10 C.F.R. 2.326, 2.309(c), and 2.309(f)(1); LBP-10-19, 72 NRC 529 (2010)
motions to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the criteria of section 2.326(a) have been satisfied; LBP-10-19, 72 NRC 529 (2010)
movant must show that it is more probable than not that it would have prevailed on the merits of the proposed new contention; LBP-10-19, 72 NRC 529 (2010)
neither legal ownership nor title is required in order for a party to have "possession, custody, or control" of a document; LBP-10-23, 72 NRC 692 (2010)
new contentions based on assumptions that cannot be considered information that was not previously available or materially different than information previously available do not meet admissibility requirements; CLI-10-17, 72 NRC 1 (2010)
new or amended contentions filed after the initial deadline may be admitted with leave of the presiding officer upon a showing that information on which the contention is based was not previously available and is materially different than information previously available and the contention has been submitted in a timely fashion; LBP-10-14, 72 NRC 101 (2010)
no proximity presumption applies in source materials cases; LBP-10-16, 72 NRC 361 (2010)
NRC's expanding adjudicatory docket makes it critically important that parties comply with NRC pleading requirements and that the board enforce those requirements; CLI-10-27, 72 NRC 481 (2010)
NRC's production-of-documents regulation, 10 C.F.R. 2.707(a)(1) is essentially the same as Fed. R. Civ. P. 34(a)(1); LBP-10-23, 72 NRC 692 (2010)
once a petition to intervene has been granted, issues involving access to documents for use in the proceeding are governed by NRC discovery rules; CLI-10-24, 72 NRC 451 (2010)
once the deadline for filing an initial intervention petition has passed, a party wishing to submit new or amended contentions on matters not associated with issuance of the Staff's draft or final environmental

impact statement must satisfy the requirements of 10 C.F.R. 2.309(f)(2); LBP-10-21, 72 NRC 616 (2010)
once the record of a proceeding is closed, new information may not be considered in the proceeding unless the reopening standards are met; LBP-10-21, 72 NRC 616 (2010)
only in truly unavoidable and extreme circumstances are late filings to be accepted; LBP-10-21, 72 NRC 616 (2010)
participant filing out of time must offer a satisfactory explanation for its lateness, including, if necessary, an account as to why a request for extension could not have been filed beforehand; LBP-10-21, 72 NRC 616 (2010)
parties are expected to file motions for extensions of time so that they are received by NRC well before the time specified expires; CLI-10-26, 72 NRC 474 (2010)
pendency of a petition for Commission review does not absolve petitioner of its duty to file a motion to reopen in a timely fashion; LBP-10-19, 72 NRC 529 (2010)
petitioner does not need to provide expert opinion or a substantive affidavit in order to satisfy 10 C.F.R. 2.309(f)(1)(v); LBP-10-15, 72 NRC 257 (2010)
petitioner has alleged sufficient new information concerning the seismic situation to raise a prima facie showing that strict application of the generic NEPA analysis of the management of spent fuel in nuclear reactors would not serve the purpose for which Part 51 Appendix B and 10 C.F.R. 51.53(c)(2) were adopted; LBP-10-15, 72 NRC 257 (2010)
petitioner has an iron-clad obligation to examine the publicly available documentary material with sufficient care to enable it to uncover any information that could serve as the foundation for a specific contention; CLI-10-27, 72 NRC 481 (2010)
petitioner has an obligation to explain why cited testimony provides a basis for its contention; LBP-10-17, 72 NRC 501 (2010)
petitioner has presented a prima facie showing for waiver of the NRC regulation covering the environmental impacts of spent fuel pool accidents generically, and has shown that its contention concerning earthquake-induced spent fuel pool accidents is otherwise admissible; LBP-10-15, 72 NRC 257 (2010)
petitioner must demonstrate that its contention is within the scope of the proceeding; LBP-10-16, 72 NRC 361 (2010)
petitioner must establish standing and proffer at least one admissible contention that meets the requirements of 10 C.F.R. 2.309(f)(1); LBP-10-16, 72 NRC 361 (2010)
petitioner must establish that it has suffered a distinct and palpable harm that constitutes injury-in-fact within the zone of interests arguably protected by the governing statute and that the injury can fairly be traced to the challenged action and is likely to be redressed by a favorable decision; LBP-10-15, 72 NRC 257 (2010)
petitioner must make a fresh standing demonstration in each individual proceeding in which intervention is sought; LBP-10-21, 72 NRC 616 (2010)
petitioner must provide a concise statement of the alleged facts that support its position and upon which the petitioner intends to rely at the hearing; LBP-10-16, 72 NRC 361 (2010)
petitioner, especially one represented by counsel, bears the burden of going forward and specifically addressing each of the six elements in 10 C.F.R. 2.309(f)(1); LBP-10-16, 72 NRC 361 (2010)
petitioners are not required to demonstrate their asserted injury with certainty at the contention admission stage, or to provide extensive technical studies in support of their standing argument; LBP-10-16, 72 NRC 361 (2010)
petitioner's claimed injury must be arguably within the zone of interests protected by the governing statute in the proceeding; LBP-10-16, 72 NRC 361 (2010)
petitioner's issue will be ruled inadmissible if petitioner has offered no tangible information, no experts, or no substantive affidavits; LBP-10-15, 72 NRC 257 (2010)
petitioners must seek leave to request reconsideration of a decision and set forth compelling circumstances that petitioners could not reasonably have anticipated and that would render the decision invalid; CLI-10-21, 72 NRC 197 (2010)
petitioner's participation in a licensing proceeding hinges on a demonstration that the petitioner has standing; LBP-10-16, 72 NRC 361 (2010)

petitioners seeking to introduce new contentions after the board has denied their initial petition to intervene need to address the reopening standards; LBP-10-21, 72 NRC 616 (2010)
petitioner's standing showing can be corrected or supplemented to cure deficiencies by means of its reply pleading; LBP-10-21, 72 NRC 616 (2010)
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 legally required missing information; LBP-10-16, 72 NRC 361 (2010)
prima facie case is defined as establishment of a legally required rebuttable presumption or a party's production of enough evidence to allow the fact-trier to infer the fact at issue and rule in the party's favor; LBP-10-15, 72 NRC 257 (2010)
proponent of a motion to reopen must do more than simply raise a safety issue, but must show that the safety issue it raises is significant; LBP-10-19, 72 NRC 529 (2010)
proximity-based presumption of standing applies in proceedings for nuclear power plant construction permits, operating licenses, or significant amendments thereto; LBP-10-16, 72 NRC 361 (2010)
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; LBP-10-17, 72 NRC 501 (2010)
review at the end of the case would be meaningless because the Commission cannot later, on appeal from a final board decision, rectify an erroneous disclosure order; CLI-10-29, 72 NRC 556 (2010)
rules on contention admissibility are strict by design; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
scope of the proceeding is defined by the Commission in its initial hearing notice and order referring the proceeding to the licensing board; LBP-10-17, 72 NRC 501 (2010)
showing necessary for grant of a petition for interlocutory review is described; CLI-10-29, 72 NRC 556 (2010)
six basic requirements for an admissible contention can be summarized as specificity, brief explanation, within scope, materiality, concise statement of alleged facts or expert opinion, and genuine dispute; LBP-10-15, 72 NRC 257 (2010)
Staff's propositions at the contention admission stage regarding what would effectively cure an omission from a license renewal application are matters for a merits decision, not for a determination of whether or not a contention of omission is admissible; LBP-10-15, 72 NRC 257 (2010)
standing generally has been denied when the threat of injury is not concrete and particularized; LBP-10-16, 72 NRC 361 (2010)
standing requires that petitioner allege a particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-10-16, 72 NRC 361 (2010)
subject matter of a contention must impact the grant or denial of the pending license application; LBP-10-17, 72 NRC 501 (2010)
submission of a new contention within 30 days of the event giving rise to that contention is timely; LBP-10-17, 72 NRC 501 (2010)
sufficiency of an application is not a matter committed solely to the NRC Staff's discretion and thus is within the scope of an adjudicatory proceeding; LBP-10-17, 72 NRC 501 (2010)
summary disposition is not a tool for trying to convince a licensing board to decide, on written submissions, genuine issues of material fact that warrant resolution at a hearing; LBP-10-20, 72 NRC 571 (2010)
summary disposition may be granted only if the truth is clear; LBP-10-20, 72 NRC 571 (2010)
summary disposition movant must show that the matter entails no genuine issue as to any material fact and that movant is entitled to a decision as a matter of law; LBP-10-20, 72 NRC 571 (2010)
summary disposition rules 2.1205 and 2.710 are substantially similar; LBP-10-20, 72 NRC 571 (2010)
the affidavit accompanying a petition for rule waiver need not be prepared by an expert; LBP-10-15, 72 NRC 257 (2010)
the amended late-filed contentions rule, 10 C.F.R. 2.309(f)(2), is not intended to alter the standards in section 2.714(a) of its rules of practice as interpreted by NRC case law; LBP-10-17, 72 NRC 501 (2010)
the board grants intervenors' motion to compel disclosure of certain groundwater modeling information associated with a combined license application; LBP-10-23, 72 NRC 692 (2010)

the Commission elaborates on the standards for accepting an appeal filed out of time; LBP-10-21, 72 NRC 616 (2010)
the Commission generally applies the same standard for summary disposition that federal courts apply when ruling on motions for summary judgment under Rule 56 of the Federal Rules of Civil Procedure; LBP-10-20, 72 NRC 571 (2010)
the Commission has set forth a four-part test for grant of a rule waiver, and all four factors must be met; LBP-10-22, 72 NRC 661 (2010)
the Commission may consider the criteria listed in 10 C.F.R. 2.786(b)(4) when reviewing interlocutory matters on the merits, but when determining whether to undertake such review, the standards in section 2.786(g) control the determination; CLI-10-29, 72 NRC 556 (2010)
the Commission may, at its discretion, grant a party's request for interlocutory review of a board decision; CLI-10-30, 72 NRC 564 (2010)
the Commission will consider a petition for review if it raises a substantial question with respect to one or more of the five paragraphs of 10 C.F.R. 2.341(b)(4); CLI-10-17, 72 NRC 1 (2010)
the concept of control extends to situations in which the party has the practical ability to obtain materials in the possession of another, even if the party does not have the legal right to compel the other person or entity to produce the requested materials; LBP-10-23, 72 NRC 692 (2010)
the disclosing party can either provide the other parties with an actual copy of the document or data compilation or can simply describe it and provide it if the other party requests it; LBP-10-23, 72 NRC 692 (2010)
the fact that a party may have other obligations does not relieve that party of its hearing obligations; CLI-10-26, 72 NRC 474 (2010)
the injury-in-fact necessary to establish organizational standing must be more than a mere interest in a problem, no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem; LBP-10-16, 72 NRC 361 (2010)
the manner in which the Staff conducts its review is outside the scope of a proceeding; LBP-10-17, 72 NRC 501 (2010)
the mere potential for legal error in a contention admissibility decision is not a ground for interlocutory review; CLI-10-30, 72 NRC 564 (2010)
the phrase "possession, custody, or control" as found in the Federal Rules of Civil Procedure and 10 C.F.R. 2.336(a) is in the disjunctive, and thus only one of the enumerated requirements needs to be met; LBP-10-23, 72 NRC 692 (2010)
the proximity presumption of standing applies in proceedings for nuclear power plant construction permits, operating licenses, or significant amendments thereto; LBP-10-15, 72 NRC 257 (2010)
the purpose of contention pleading requirements is to focus litigation on concrete issues and result in a clearer and more focused record for decision; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
the question whether to hold an NRC enforcement proceeding in abeyance pending a related criminal prosecution is generally suitable for interlocutory Commission review because, unlike most interlocutory questions, the abeyance issue cannot await the end of the proceeding because it becomes moot; CLI-10-29, 72 NRC 556 (2010)
the regulations do not define the phrase "differ significantly" but in the absence of a statutory definition, courts normally define a term by its ordinary meaning; LBP-10-24, 72 NRC 720 (2010)
the relevance standard of 10 C.F.R. 2.336 is more flexible than the relevance standard of Fed. R. Evid. 401; LBP-10-23, 72 NRC 692 (2010)
the requirement that contentions be supported by alleged facts or expert opinion 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-10-14, 72 NRC 101 (2010)
the scope of discovery is broader than the scope of admissible evidence; LBP-10-23, 72 NRC 692 (2010)
the scope of the mandatory disclosure obligations under 10 C.F.R. 2.336, which apply to Subpart L proceedings, is wide-reaching; LBP-10-23, 72 NRC 692 (2010)
the significance of the issue being raised by a new contention would be a relevant "good cause" consideration; LBP-10-21, 72 NRC 616 (2010)
the standard of review on appeal is abuse of discretion; CLI-10-24, 72 NRC 451 (2010)

the timeliness of a motion to reopen depends on what/when was the trigger that provided the footing for the new contention and was the motion seeking record reopening/contention admission timely filed after that trigger event; LBP-10-21, 72 NRC 616 (2010)
the unavailability of documents does not constitute a showing of good cause for admitting a late-filed contention when the factual predicate for that contention is available from other sources in a timely manner; CLI-10-27, 72 NRC 481 (2010)
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-10-27, 72 NRC 481 (2010)
threat of terrorist attack at spent fuel pools has been evaluated generically by NRC, and special circumstances for rule waiver have not been shown; LBP-10-15, 72 NRC 257 (2010)
timeliness of a motion to reopen in which the proponent of the motion proffers a new contention depends primarily on an assessment as to when the proponent of the motion first knew, or should have known, enough information to raise the issues presented in the new contention; LBP-10-19, 72 NRC 529 (2010)
timeliness of a new or amended contention based on material new information is based on the timing of the availability of the information on which the contention is based, not the timing of the NRC Staff NEPA document; LBP-10-24, 72 NRC 720 (2010)
to assert an appropriate injury for organizational standing, an organization must demonstrate a palpable injury in fact to its organizational interests; LBP-10-16, 72 NRC 361 (2010)
to derive standing from a member, an organization must demonstrate that the individual member has standing to participate and has authorized the organization to represent his or her interests; LBP-10-16, 72 NRC 361 (2010)
to determine whether an interest is in the zone of interests of a statute, it is necessary first to discern the interests arguably to be protected by the statutory provision at issue and then to inquire whether petitioner's interests affected by the agency action are among them; LBP-10-16, 72 NRC 361 (2010)
to determine whether petitioners have standing, boards accept as true all material allegations of the complaint and construe the complaint in favor of the complaining party; CLI-10-20, 72 NRC 185 (2010)
to establish causation, petitioner must show that there is a causal connection between the injury and the conduct complained of; LBP-10-16, 72 NRC 361 (2010)
to establish organizational standing, an organization must demonstrate that the action at issue will cause an injury in fact to the organization's interests and the injury is within the zone of interests protected by NEPA or the AEA; LBP-10-16, 72 NRC 361 (2010)
to establish standing in federal court, a party must show injury-in-fact, causation, and redressability; LBP-10-16, 72 NRC 361 (2010)
to establish standing, petitioner must show that 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, the injury is fairly traceable to the challenged action, and the injury is likely to be redressed by a favorable decision; LBP-10-21, 72 NRC 616 (2010)
to establish standing, petitioner must show that its alleged injury in fact could be cured or alleviated by some action of the tribunal; LBP-10-16, 72 NRC 361 (2010)
to interpose a new contention after a proceeding has been terminated requires submission of a fresh intervention petition that fulfills the applicable standards for such filings, including an appropriate standing demonstration; LBP-10-21, 72 NRC 616 (2010)
to justify reopening the record to admit a new contention, the moving papers must be strong enough, in the light of any opposing filings, to avoid summary disposition, and the new information must be significant and plausible enough to require reasonable minds to inquire further; LBP-10-21, 72 NRC 616 (2010)
to rule that disclosure under 10 C.F.R. 2.336(a)(2)(i) is limited to formal contractual deliverables would encourage applicants to draft consulting contracts to insulate themselves from the obligation to disclose critical computer modeling information; LBP-10-23, 72 NRC 692 (2010)
to satisfy the "clearly erroneous" standard, a litigant must show that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-17, 72 NRC 1 (2010)

to show good cause for the late filing of a contention, 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; CLI-10-27, 72 NRC 481 (2010)
unfamiliarity with NRC's Rules of Practice is not sufficient excuse for late filings, particularly when the order that is being challenged expressly advised petitioner of his appellate rights and of the time within which those rights had to be exercised; CLI-10-26, 72 NRC 474 (2010)
unless a deadline has been specified in the scheduling order for the proceeding, the determination of timeliness is subject to a reasonableness standard that depends on the facts and circumstances of each situation; LBP-10-24, 72 NRC 720 (2010)
when a contested proceeding has been terminated following the resolution of all submitted contentions, an individual, group, or governmental entity that wishes to interpose an additional issue must submit a new intervention petition that addresses the standards in section 2.309(c)(1) that govern nontimely intervention petitions; LBP-10-21, 72 NRC 616 (2010)
when a new contention is filed challenging new data or conclusions in NRC's environmental documents, the timeliness of the new contention is based on whether it was filed promptly after the NRC's NEPA document became publicly available, not whether it was filed promptly after the information on which the intervenor bases its challenge became publicly available; LBP-10-24, 72 NRC 720 (2010)
when a reopening motion is untimely, the section 3.326(a)(1) "exceptionally grave circumstances" test supplants the "significant issue" standard under section 2.326(a)(2); LBP-10-21, 72 NRC 616 (2010)
when petitioner seeks to introduce a new contention after the record has been closed, it should address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing; LBP-10-21, 72 NRC 616 (2010)
when seeking to intervene in a representational capacity, an organization must identify by name and address at least one member who is affected by the licensing action and who qualifies for standing in his or her own right, and show that the member has authorized the organization to intervene on his or her behalf; LBP-10-15, 72 NRC 257 (2010)
when the Commission endorsed the use of the Federal Rules of Evidence as guidance for the boards, it did so with the express proviso that boards must apply the Part 2 rules with greater flexibility than the FRE; LBP-10-23, 72 NRC 692 (2010)
when the Commission reviews board rulings on contention admissibility, it employs the clear error and abuse of discretion standards of review; CLI-10-17, 72 NRC 1 (2010)
when the contested portion of a proceeding is terminated following an unchallenged merits determination in favor of applicant regarding the proceeding's sole admitted contention, the board's focus must be on the requirements applicable to reopening a closed record set out in 10 C.F.R. 2.326; LBP-10-21, 72 NRC 616 (2010)
where a contention is superseded by the subsequent issuance of licensing-related documents, the contention must be disposed of or modified; LBP-10-17, 72 NRC 501 (2010)
where a motion to reopen a proceeding to introduce a new contention founders on several of the initial criteria, the board find it unnecessary to prolong the ruling by analyzing all of the other factors; LBP-10-19, 72 NRC 529 (2010)
where petitioner was admitted to the case as a party at the time it filed an amended contention, consideration of the contention's admissibility is also governed by the general contention admissibility requirements of section 2.309(f)(1); CLI-10-18, 72 NRC 56 (2010)
RULES OF PROCEDURE
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); CLI-10-18, 72 NRC 56 (2010)
the informal procedural rules of Part 2, Subpart L place greater emphasis and responsibility on the presiding officer to oversee the development of a full and complete record; CLI-10-17, 72 NRC 1 (2010)
SAFEGUARDS INFORMATION
applicant requested that its mitigative strategies report be withheld from public disclosure because it contained security-related information; CLI-10-24, 72 NRC 451 (2010)

SAFETY ANALYSIS
although the analysis required by 10 C.F.R. 50.59 is not the same as the final safety analysis, it is nevertheless a formal, written analysis involving safety issues (accident probabilities and/or consequences); LBP-10-20, 72 NRC 571 (2010)
the function of 10 C.F.R. 50.59 is to deal with changes to a nuclear power plant, and it requires, as a prerequisite to any such change, that the licensee perform safety analyses in addition to those contained in the final safety analysis report; LBP-10-20, 72 NRC 571 (2010)
SAFETY CULTURE
although not required by regulation, settlement agreements that contain language reinforcing employees' rights to raise safety concerns and communicate with the NRC avoid the possibility of being construed in a way that could be a violation; DD-10-1, 72 NRC 149 (2010)
broad-based issues akin to safety culture, such as operational history, quality assurance, quality control, management competence, and human factors, are beyond the bounds of a license renewal proceeding; CLI-10-27, 72 NRC 481 (2010)
Green inspection finding indicates that the deficiency in licensee performance has a very low-risk significance and has little or no impact on safety, but White, Yellow, and Red findings indicate increasingly serious safety problems; CLI-10-27, 72 NRC 481 (2010)
if the Commission were to permit fundamentally routine inspection findings and regulatory determinations to form the basis for safety culture contentions, this result could lead to a potentially never-ending stream of minitrials on operational issues, in which the applicant would be required to demonstrate how each issue was satisfactorily resolved; CLI-10-27, 72 NRC 481 (2010)
nondisparagement clauses in retention bonus agreements are common in employment agreements and NRC should not interfere with these agreements unless it finds such a clause violates 10 C.F.R. 50.7(f) or is applied in a fashion that prevents or retaliates against an employee for engaging in protected activities such as communicating with NRC; DD-10-1, 72 NRC 149 (2010)
NRC continually takes measures to include the monitoring of safety culture in its oversight programs and internal management processes; CLI-10-27, 72 NRC 481 (2010)
operating reactor licensees are not required to implement an employee concerns program, but are required to establish and implement an effective corrective action program; DD-10-1, 72 NRC 149 (2010)
petitioner's request for action concerning deficiencies in licensee's employee concerns program is denied; DD-10-1, 72 NRC 149 (2010)
the purpose of 10 C.F.R. 50.7(f) is to ensure that licensees do not enter into employment agreements that would prohibit, restrict, or otherwise discourage an employee or former employee from providing the NRC with information of regulatory significance; DD-10-1, 72 NRC 149 (2010)
to the extent petitioner believes that NRC Staff has overlooked facts indicating an inadequate safety culture as a matter separate and apart from license renewal, then its remedy is to direct Staff's attention to the supporting facts via a petition for enforcement action; CLI-10-27, 72 NRC 481 (2010)
SAFETY ISSUES
a timely motion to reopen may be denied if it raises issues that are not of major significance to plant safety whereas a nontimely motion may be granted if it raises an issue of sufficient gravity; LBP-10-21, 72 NRC 616 (2010)
in the context of a safety contention, petitioner must show that a waiver of the regulation is necessary to reach a significant safety problem; LBP-10-15, 72 NRC 257 (2010)
proponent of a motion to reopen must do more than simply raise a safety issue, but must show that the safety issue it raises is significant; LBP-10-19, 72 NRC 529 (2010)
the board may not consider that long-term erosion might entirely eliminate the proposed repository's upper geologic barrier unless the erosion is also shown to be a safety concern in the relatively near term; LBP-10-22, 72 NRC 661 (2010)
the only safety issue where the regulatory process may not adequately maintain a plant's current licensing basis involves the potential detrimental effects of aging on the functionality of certain systems, structures, and components during the period of extended operations; CLI-10-27, 72 NRC 481 (2010)
SAFETY REVIEW
petitioner alleges failure to conduct safety review of the modification of the controlled access area by the addition of an undocumented roof access for a siphon breaker experiment; DD-10-3, 72 NRC 171 (2010)

the aging management review for license renewal does not focus on all aging-related issues; CLI-10-27, 72 NRC 481 (2010)
SAFETY-RELATED
motion to reopen to introduce a new contention asserting issues related to aging management of effects of moist or wet environments on buried, below-grade, underground, or hard-to-access safety-related electrical cables is denied; LBP-10-19, 72 NRC 529 (2010)
SANCTIONS
a spectrum of sanctions from minor to severe may be employed by a board to assist in the management of a proceeding; LBP-10-21, 72 NRC 616 (2010)
examples include warning a party that offending conduct will not be tolerated in the future, refusing to consider a filing, denying the right to cross-examine or present evidence, dismissing contentions, imposing sanctions on counsel, or dismissing the party from the proceeding; LBP-10-21, 72 NRC 616 (2010)
factors considered in selecting an appropriate sanction include relative importance of the unmet obligation, its potential for harm to other parties or the orderly conduct of the proceeding, whether its occurrence is an isolated incident or a part of a pattern of behavior, the importance of the safety or environmental concerns raised by the party, and all of the circumstances; LBP-10-21, 72 NRC 616 (2010)
with an eye toward mitigating prejudice to nonbreaching participants, boards must tailor sanctions to bring about improved future compliance; LBP-10-21, 72 NRC 616 (2010)
SCHEDULE, BRIEFING
although participants generally must comply with the schedule established by the presiding officer, they might sometimes be unable to meet established deadlines; LBP-10-21, 72 NRC 616 (2010)
in establishing and enforcing schedule deadlines, boards must take care not to compromise the Commission's fundamental commitment to a fair and thorough hearing process; LBP-10-21, 72 NRC 616 (2010)
licensing boards have authority to set a proceeding's schedule and to ensure compliance with that schedule; LBP-10-21, 72 NRC 616 (2010)
SCHEDULING
licensing boards have authority to control the schedule for a proceeding to ensure that intervenors have adequate time to prepare new or amended contentions in response to new information; LBP-10-17, 72 NRC 501 (2010)
SECURITY
a person may be denied access at a licensee facility based on falsification of information, trustworthiness or reliability issues, and issues related to fitness for duty; DD-10-2, 72 NRC 163 (2010)
an individual requiring clarification or resolution of an access authorization concern must resolve the issue with the licensee where unescorted access was last held or otherwise denied; DD-10-2, 72 NRC 163 (2010)
each licensee must evaluate access denial status on a case-by-case basis and make a determination of trustworthiness and reliability; DD-10-2, 72 NRC 163 (2010)
nuclear industry was required to develop, implement, and maintain an industry database accessible by NRC-licensed facilities to share information, including determination of whether an individual is denied access at any other NRC-licensed facility; DD-10-2, 72 NRC 163 (2010)
petitioner alleges failure to conduct safety review of the modification of the controlled access area by the addition of an undocumented roof access for a siphon breaker experiment; DD-10-3, 72 NRC 171 (2010)
potentially disqualifying information for unescorted access authorization may include unfavorable information from an employer, developed or disclosed criminal history, credit history, judgments, unfavorable reference information, evidence of drug or alcohol abuse, discrepancies between information disclosed and developed; DD-10-2, 72 NRC 163 (2010)
SEISMIC ISSUES
petitioner has alleged sufficient new information concerning the seismic situation to raise a prima facie showing that strict application of the generic NEPA analysis of the management of spent fuel in nuclear reactors would not serve the purpose for which Part 51 Appendix B and 10 C.F.R. 51.53(c)(2) were adopted; LBP-10-15, 72 NRC 257 (2010)

petitioner has presented a prima facie showing for waiver of the NRC regulation covering the environmental impacts of spent fuel pool accidents generically, and has shown that its contention concerning earthquake-induced spent fuel pool accidents is otherwise admissible; LBP-10-15, 72 NRC 257 (2010)
See also Earthquakes
SENSITIVE UNCLASSIFIED NONSAFEGUARDS INFORMATION
a board's determination on a request for access is reviewed de novo; CLI-10-24, 72 NRC 451 (2010)
an appeal as of right by NRC Staff is permitted on the question of whether a request for access to SUNSI should have been denied in whole or in part; CLI-10-24, 72 NRC 451 (2010)
because of the security-related SUNSI categorization of a Staff guidance document used to assess an application's compliance with NRC rules, the Staff would not have to produce the document but would be required to identify the document as part of its continuing duty of disclosure; CLI-10-24, 72 NRC 451 (2010)
for documents that are otherwise discoverable, but for which there is a claim of privilege or protected status, NRC Staff must list them and provide sufficient information for assessing their privilege or protected status; CLI-10-24, 72 NRC 451 (2010); CLI-10-25, 72 NRC 469 (2010)
handling of confidential commercial or financial (proprietary) information that has been submitted to the agency is governed by 10 C.F.R. 2.390; CLI-10-24, 72 NRC 451 (2010)
in its supervisory capacity, the Commission provides guidance on the "need for SUNSI" analysis, for use in those instances when an access order applies; CLI-10-24, 72 NRC 451 (2010)
the "need for SUNSI" inquiry is essentially a relevance inquiry just as a federal court litigant must show that information sought in discovery is relevant to its claims or defenses; CLI-10-24, 72 NRC 451 (2010)
the showing required for "need" for SUNSI could include, but does not require (nor is it limited to), an explanation that the information will be used as support for a contention; CLI-10-24, 72 NRC 451 (2010)
upon a showing of need, petitioners' request to obtain access to an unredacted application was granted; CLI-10-24, 72 NRC 451 (2010)
SETTLEMENT AGREEMENTS
although not required by regulation, settlement agreements that contain language reinforcing employees' rights to raise safety concerns and communicate with the NRC avoid the possibility of being construed in a way that could be a violation; DD-10-1, 72 NRC 149 (2010)
Severity Level III violation for licensee's failure to develop and implement a formalized procedure to neutralize a spill involving hydrofluoric acid, resulting in exposure to licensee operators, is recategorized to a violation with no assigned severity level; LBP-10-18, 72 NRC 519 (2010)
SEVERE ACCIDENT MITIGATION ALTERNATIVES ANALYSIS
a SAMA analysis contention was found to be inadmissible because it lacked supporting information regarding the relative costs and benefits of that proposed alternative; LBP-10-15, 72 NRC 257 (2010)
adequacy or inadequacy of applicant's SAMA analysis is certainly within the scope of a license renewal proceeding; LBP-10-15, 72 NRC 257 (2010)
although "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated the terms clearly limit them to nuclear reactors and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 257 (2010)
analyses are not required for the spent fuel storage impacts associated with license renewals; LBP-10-15, 72 NRC 257 (2010)
analyses are rooted in a cost-benefit assessment, and the purpose of the assessment is to identify plant changes whose costs would be less than their benefit; LBP-10-14, 72 NRC 101 (2010)
applicant requested that its mitigative strategies report be withheld from public disclosure because it contained security-related information; CLI-10-24, 72 NRC 451 (2010)
applicant's environmental report for its license renewal application must include a SAMA analysis, outlining the costs and benefits of potential mitigation measures to reduce severe accident risk or consequences; CLI-10-30, 72 NRC 564 (2010)
contention raising question of whether a quantitative as opposed to qualitative analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary is referred to the Commission as a novel issue; LBP-10-15, 72 NRC 257 (2010)

environmental reports must include an 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; LBP-10-16, 72 NRC 361 (2010)
license renewal environmental reports must include a SAMA analysis if not previously considered by NRC Staff; LBP-10-15, 72 NRC 257 (2010)
NEPA requires the NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including full disclosures of any known shortcomings in methodology, incomplete or unavailable information and significant uncertainties; CLI-10-22, 72 NRC 202 (2010)
petitioner need not submit a sensitivity analysis in order to establish that a SAMA-related contention is material; LBP-10-15, 72 NRC 257 (2010)
probabilistic risk assessment is the Commission's accepted and standard practice in SAMA analyses; LBP-10-15, 72 NRC 257 (2010)
SEVERE ACCIDENT MITIGATION DESIGN ALTERNATIVES ANALYSIS
challenges to a SAMDA analysis are within the scope of a combined license proceeding; LBP-10-14, 72 NRC 101 (2010)
SITE CHARACTERIZATION
petitioner raises a genuine dispute with the application with respect to the adequacy of information needed to characterize the site and offsite hydrogeology to ensure confinement of the extraction fluids; LBP-10-16, 72 NRC 361 (2010)
SITE SELECTION
although substantial weight is accorded to a license applicant's preferences, if the identified purpose of a proposed project reasonably may be accomplished at locations other than the proposed site, the board may require consideration of those alternative sites; CLI-10-18, 72 NRC 56 (2010)
SITE SUITABILITY
licensing board may disapprove a site for a new reactor only upon one of two findings; LBP-10-24, 72 NRC 720 (2010)
SOLAR POWER
wind or solar power are not considered as stand-alone alternatives because neither source is deemed capable of serving the purpose and need of the project, generating 1600 MWe of baseload power; LBP-10-24, 72 NRC 720 (2010)
SOURCE MATERIAL
petitioner alleges that routine unprotected handling of an unshielded neutron source by licensed operators and uncontrolled access by untrained and unlicensed facility visitors to this neutron source violated ALARA requirements; DD-10-3, 72 NRC 171 (2010)
SOURCE MATERIALS LICENSES
burden is on petitioner to allege a specific and plausible means by which contaminants from mining activities may adversely affect him or her; LBP-10-16, 72 NRC 361 (2010)
in cases involving ISL uranium mining and other source materials licensing, petitioner must demonstrate injury, causation, and redressability because proximity to the proposed facility alone is not adequate to demonstrate standing; LBP-10-16, 72 NRC 361 (2010)
intervention petitioner has the burden of showing a specific and plausible means by which the proposed license activities may affect him or her; LBP-10-16, 72 NRC 361 (2010)
no proximity presumption applies in source materials cases; LBP-10-16, 72 NRC 361 (2010)
SPENT FUEL POOLS
petitioner has presented a prima facie showing for waiver of the NRC regulation covering the environmental impacts of spent fuel pool accidents generically, and has shown that its contention concerning earthquake-induced spent fuel pool accidents is otherwise admissible; LBP-10-15, 72 NRC 257 (2010)
threat of terrorist attack at spent fuel pools has been evaluated generically by NRC and special circumstances for rule waiver have not been shown; LBP-10-15, 72 NRC 257 (2010)
SPENT FUEL STORAGE
although "severe accident," "severe accident mitigation alternatives," and "SAMA" are not defined in NRC's NEPA regulations, the NRC policy documents that originated the terms clearly limit them to nuclear reactors and do not include spent fuel pools or storage; LBP-10-15, 72 NRC 257 (2010)

for a contention regarding environmental impacts of spent fuel storage to be within the scope of an operating license renewal proceeding, petitioner must obtain a waiver under 10 C.F.R. 2.335(d); LBP-10-15, 72 NRC 257 (2010)
severe accident mitigation alternatives analyses are not required for the spent fuel storage impacts associated with license renewals; LBP-10-15, 72 NRC 257 (2010)
spent fuel from an additional 20 years of operation can be stored safely, with small environmental effects, at all plants and such impacts are classified as Category 1 issues that are not within the scope of individual license renewal proceedings; LBP-10-15, 72 NRC 257 (2010)
STANDARD OF PROOF
plaintiff may prove his case by direct or circumstantial evidence; CLI-10-23, 72 NRC 210 (2010)
to convict a person accused of making a false statement, the government must prove not only that the statement was false, but that the accused knew it to be false; CLI-10-23, 72 NRC 210 (2010)
STANDARD OF REVIEW
a board's determination on a request for access to sensitive unclassified nonsafeguards information is reviewed de novo; CLI-10-24, 72 NRC 451 (2010)
although boards should not "flyspeck" environmental documents, petitioners may raise contentions seeking correction of significant inaccuracies and omissions in the environmental report; LBP-10-24, 72 NRC 720 (2010)
an abuse of discretion standard is applied to Commission review of decisions on evidentiary questions; CLI-10-18, 72 NRC 56 (2010)
because the burden is on the summary disposition movant, the board must examine the record in the light most favorable to the nonmoving party and give the nonmoving party the benefit of all favorable inferences that can be drawn from the evidence; LBP-10-20, 72 NRC 571 (2010)
if issuing a license involves oversight of a private project rather than a federally sponsored project, the agency is entitled to give the applicant's preferences substantial weight when considering project design alternatives; LBP-10-14, 72 NRC 101 (2010)
interlocutory review is granted only in extraordinary circumstances; CLI-10-30, 72 NRC 564 (2010)
interlocutory review will be granted only if petitioner demonstrates that the issue for which it seeks review 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 affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-10-30, 72 NRC 564 (2010)
legal issues are reviewed de novo on appeal, but the Commission generally defers to board findings of fact, unless they are clearly erroneous; CLI-10-17, 72 NRC 1 (2010)
licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 210 (2010)
licensing boards have authority to regulate the course of proceedings, and the Commission generally defers to the boards on case management decisions; CLI-10-28, 72 NRC 553 (2010)
NEPA imposes procedural requirements on the NRC to take a hard look at the environmental impacts of building and operating a nuclear reactor; LBP-10-14, 72 NRC 101 (2010)
NRC has broad discretion to determine how thoroughly it needs to analyze a particular subject for NEPA compliance; LBP-10-14, 72 NRC 101 (2010)
on appeal, abuse of discretion is the standard; CLI-10-24, 72 NRC 451 (2010)
petition for review satisfies 10 C.F.R. 2.341(b)(4)(ii), (iii), and (v) of the standards for review because the challenged portions of the initial decision address significant issues of law and policy that lack governing precedent and raise issues that could affect other license renewal determinations; CLI-10-17, 72 NRC 1 (2010)
petitioner's argument regarding rejection of its contention satisfies the prejudicial procedural error standard for review; CLI-10-17, 72 NRC 1 (2010)
the Commission defers to a licensing board's rulings on contention admissibility unless an appeal points to an error of law or abuse of discretion; CLI-10-21, 72 NRC 197 (2010)
the Commission elaborates on the standards for accepting an appeal filed out of time; LBP-10-21, 72 NRC 616 (2010)
the Commission generally defers to a board's rulings on standing in the absence of clear error or an abuse of discretion; CLI-10-20, 72 NRC 185 (2010)

the Commission may consider the criteria listed in 10 C.F.R. 2.786(b)(4) when reviewing interlocutory matters on the merits, but when determining whether to undertake such review the standards in section 2.786(g) control the determination; CLI-10-29, 72 NRC 556 (2010)
the Commission refrains from exercising its authority to make de novo findings of fact in situations where a licensing board has issued a plausible decision that rests on carefully rendered findings of fact; CLI-10-18, 72 NRC 56 (2010)
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-10-18, 72 NRC 56 (2010)
the Commission will consider a petition for review if it raises a substantial question with respect to one or more of the five paragraphs of 10 C.F.R. 2.341(b)(4); CLI-10-17, 72 NRC 1 (2010)
the Commission will not consider cursory, unsupported arguments; CLI-10-23, 72 NRC 210 (2010)
the Commission will not overturn a hearing judge's findings simply because the Commission might have reached a different result; CLI-10-23, 72 NRC 210 (2010)
the fact that the board accorded greater weight to one party's evidence than to the other's is not a basis for overturning the initial decision; CLI-10-23, 72 NRC 210 (2010)
the mere potential for legal error in a contention admissibility decision is not a ground for interlocutory review; CLI-10-30, 72 NRC 564 (2010)
the standard of clear error for overturning a board's factual findings is quite high; CLI-10-18, 72 NRC 56 (2010)
to satisfy the "clearly erroneous" standard, a litigant must show that the board's findings are not even plausible in light of the record viewed in its entirety; CLI-10-17, 72 NRC 1 (2010); CLI-10-23, 72 NRC 210 (2010)
when the Commission reviews board rulings on contention admissibility, it employs the clear error and abuse of discretion standards of review; CLI-10-17, 72 NRC 1 (2010)
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the plan provides guidance but does not impose requirements on license renewal applicants; CLI-10-17, 72 NRC 1 (2010)
STANDING TO INTERVENE
a board's determination of standing does not depend on whether the cause of the injury flows directly from the challenged action, but whether the chain of causation is plausible; LBP-10-16, 72 NRC 361 (2010)
a board's standing analysis must avoid the familiar trap of confusing the standing determination with the assessment of a petitioner's case on the merits; LBP-10-16, 72 NRC 361 (2010)
a federally recognized Indian tribe may seek to participate in a proceeding; LBP-10-16, 72 NRC 361 (2010)
a party claiming violations of their procedural right to protect their interests in cultural resources is to be accorded a special status when it comes to standing, without meeting all the normal standards for redressability and immediacy; LBP-10-16, 72 NRC 361 (2010)
although boards should afford greater latitude to a pleading submitted by a pro se petitioner, that petitioner ultimately bears the burden to provide facts sufficient to show standing; CLI-10-20, 72 NRC 185 (2010)
an Indian tribe claims a procedural interest in identifying, evaluating, and establishing protections for historic and cultural resources; LBP-10-16, 72 NRC 361 (2010)
an individual petitioner may not request to intervene in his or her own right while simultaneously authorizing other petitioners to represent his or her interests in the proceeding; LBP-10-16, 72 NRC 361 (2010)
an injury in fact must go beyond generalized grievances to affect a petitioner in a personal and individual way; LBP-10-16, 72 NRC 361 (2010)
any potential harm associated with petitioner's use of water from a water source connecting to a mining site is fairly traceable to the proposed action; LBP-10-16, 72 NRC 361 (2010)
because petitioner's circumstances may change from one proceeding to the next, it is important that the presiding officer have up-to-date information regarding any standing claims; LBP-10-21, 72 NRC 616 (2010)

boards apply a proximity-plus test to establish standing in materials cases, where the petitioner must show that the proposed licensing action involves a significant source of radiation that has an obvious potential for offsite consequences; CLI-10-20, 72 NRC 185 (2010)
burden is on petitioner to allege a specific and plausible means by which contaminants from mining activities may adversely affect him or her; LBP-10-16, 72 NRC 361 (2010)
for a request for hearing and petition to intervene to be granted, petitioner must establish that it has standing and propose at least one admissible contention; LBP-10-15, 72 NRC 257 (2010)
if petitioner cannot establish the elements of proximity-based standing, then he must establish standing according to traditional standing principles; CLI-10-20, 72 NRC 185 (2010)
in a materials licensing case, petitioner must show more than that he lives or works within a certain distance of the site where materials will be located; CLI-10-20, 72 NRC 185 (2010)
in cases involving ISL uranium mining and other source materials licensing, petitioner must demonstrate injury, causation, and redressability because proximity to the proposed facility alone is not adequate to demonstrate standing; LBP-10-16, 72 NRC 361 (2010)
in cases involving possible construction or operation of a nuclear power reactor, proximity to the proposed facility has been an essential element in establishing standing; LBP-10-21, 72 NRC 616 (2010)
in cases not involving nuclear power reactors, whether petitioner could be affected by the licensing action must be determined on a case-by-case basis, taking into account petitioner's distance from the source, the nature of the licensed activity, and the significance of the radioactive source; CLI-10-20, 72 NRC 185 (2010)
in determining whether an individual or organization should be granted party status based on standing of right, NRC applies contemporaneous judicial standing concepts; LBP-10-21, 72 NRC 616 (2010)
in determining whether petitioner has established standing, boards may construe the petition in favor of the petitioner; LBP-10-15, 72 NRC 257 (2010)
in proceedings involving nuclear power reactors, petitioner is presumed to have standing to intervene without the need to specifically plead injury, causation, and redressability if petitioner lives within 50 miles of the proposed facility; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
in source materials cases, petitioner has the burden of showing a specific and plausible means by which the proposed license activities may affect him or her; LBP-10-16, 72 NRC 361 (2010)
information required to show standing includes the nature of petitioner's right under a relevant statute to be made a party, the nature and extent of petitioner's property, financial, or other interest in the proceeding, and the possible effect of any decision or order that might be issued on petitioner's interest; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
injury in fact is defined as an invasion of a legally protected interest that is concrete and particularized and actual or imminent rather than conjectural or hypothetical; LBP-10-16, 72 NRC 361 (2010)
it is enough that petitioner has demonstrated a realistic threat of sustaining a direct injury as a result of contaminated groundwater flowing from the site to his property; LBP-10-16, 72 NRC 361 (2010)
it is generally not sufficient to seek to establish standing in a proceeding by merely cross-referencing the showing made in another proceeding, rather than making a new presentation or at least providing a submission that updates the factual information that was provided previously; LBP-10-21, 72 NRC 616 (2010)
it might be sufficient to allow petitioner to rely on a prior standing demonstration if that prior demonstration is specifically identified and shown to correctly reflect the current status of the petitioner's standing; LBP-10-21, 72 NRC 616 (2010)
judicial concepts of standing are generally followed in NRC proceedings; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
licensing boards must assess intervention petitions to determine whether elements for standing are met even though if there are no objections to petitioner's standing; LBP-10-21, 72 NRC 616 (2010)
no proximity presumption applies in source materials cases; LBP-10-16, 72 NRC 361 (2010)
petitioner cannot base standing or a contention on the possibility that the licensee will violate the terms of its license; CLI-10-20, 72 NRC 185 (2010)
petitioner must allege a particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision; LBP-10-16, 72 NRC 361 (2010)

petitioner must establish standing and proffer at least one admissible contention that meets the requirements of 10 C.F.R. 2.309(f)(1); LBP-10-16, 72 NRC 361 (2010)
petitioner must make a fresh standing demonstration in each individual proceeding in which intervention is sought; LBP-10-21, 72 NRC 616 (2010)
petitioner must show that 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, the injury is fairly traceable to the challenged action, and the injury is likely to be redressed by a favorable decision; LBP-10-15, 72 NRC 257 (2010); LBP-10-21, 72 NRC 616 (2010)
petitioners are not required to demonstrate their asserted injury with certainty at the contention admission stage, or to provide extensive technical studies in support of their standing argument; LBP-10-16, 72 NRC 361 (2010)
petitioner's claimed injury must be arguably within the zone of interests protected by the governing statute in the proceeding; LBP-10-16, 72 NRC 361 (2010)
petitioner's participation in a licensing proceeding hinges on a demonstration that the petitioner has standing; LBP-10-16, 72 NRC 361 (2010)
petitioner's standing showing can be corrected or supplemented to cure deficiencies by means of its reply pleading; LBP-10-21, 72 NRC 616 (2010)
preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 361 (2010)
proximity-based presumption of standing applies in proceedings for nuclear power plant construction permits, operating licenses, or significant amendments thereto; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
redressability requires petitioner to show that its alleged injury in fact could be cured or alleviated by some action of the tribunal; LBP-10-16, 72 NRC 361 (2010)
someone living adjacent to the site for proposed construction of a federally licensed facility has standing to challenge the licensing agency's failure to prepare an environmental impact statement, even though he cannot establish with any certainty that the statement will cause the license to be withheld or altered, and even though the facility will not be completed for many years; LBP-10-24, 72 NRC 720 (2010)
standing generally has been denied when the threat of injury is not concrete and particularized; LBP-10-16, 72 NRC 361 (2010)
the Commission generally defers to a board's rulings on standing in the absence of clear error or an abuse of discretion; CLI-10-20, 72 NRC 185 (2010)
to determine whether an interest is in the zone of interests of a statute, it is necessary first to discern the interests arguably to be protected by the statutory provision at issue and then to inquire whether petitioner's interests affected by the agency action are among them; LBP-10-16, 72 NRC 361 (2010)
to determine whether petitioners have standing, boards accept as true all material allegations of the complaint and construe the complaint in favor of the complaining party; CLI-10-20, 72 NRC 185 (2010)
to establish an injury in fact, a party merely has to show some threatened concrete interest personal to the party that the National Historic Preservation Act was designed to protect; LBP-10-16, 72 NRC 361 (2010)
to establish causation, petitioner must show that there is a causal connection between the injury and the conduct complained of; LBP-10-16, 72 NRC 361 (2010)
to establish standing in federal court, a party must show injury in fact, causation, and redressability; LBP-10-16, 72 NRC 361 (2010)
to interpose a new contention after a proceeding has been terminated requires submission of a fresh intervention petition that fulfills the applicable standards for such filings, including an appropriate standing demonstration; LBP-10-21, 72 NRC 616 (2010)
tribes that have addressed procedural violations of the National Historic Preservation Act have uniformly been granted standing under the relaxed standard and have proceeded directly to the merits of the NHPA claim; LBP-10-16, 72 NRC 361 (2010)
where a facility will not be located within an Indian tribe's boundaries, the tribe must meet the standing requirements imposed by 10 C.F.R. 2.309(d)(1); LBP-10-16, 72 NRC 361 (2010)

SUBJECT INDEX

STANDING TO INTERVENE, ORGANIZATIONAL
- an organization may base its standing on immediate or threatened injury to either its organizational interests or to the interests of identified members; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
- an organization must demonstrate that the action at issue will cause an injury in fact to the organization's interests and the injury is within the zone of interests protected by NEPA or the AEA; LBP-10-16, 72 NRC 361 (2010)
- standing was found for an organization representing three members living in close proximity to a decommissioning site, who expressed concern that depleted uranium materials could affect a waterway abutting the property of two members; CLI-10-20, 72 NRC 185 (2010)
- the injury-in-fact necessary to establish organizational standing must be more than a mere interest in a problem, no matter how longstanding the interest and no matter how qualified the organization is in evaluating the problem; LBP-10-16, 72 NRC 361 (2010)
- to assert an appropriate injury, an organization must demonstrate a palpable injury in fact to its organizational interests; LBP-10-16, 72 NRC 361 (2010)
- to derive standing from a member, an organization must demonstrate that the individual member has standing to participate and has authorized the organization to represent his or her interests; LBP-10-16, 72 NRC 361 (2010)

STANDING TO INTERVENE, REPRESENTATIONAL
- an individual petitioner may not request to intervene in his or her own right while simultaneously authorizing other petitioners to represent his or her interests in the proceeding; LBP-10-16, 72 NRC 361 (2010)
- an organization asserting representational standing must demonstrate that the interest of at least one of its members will be harmed and the member would have standing in his or her own right, identify that member by name and address, and demonstrate that the organization is authorized to request a hearing on behalf of that member; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010); LBP-10-21, 72 NRC 616 (2010)

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- contentions that challenge applicable statutory requirements or the basic structure of the agency's regulatory process are inadmissible; LBP-10-21, 72 NRC 616 (2010)

STATUTORY CONSTRUCTION
- a text should be construed so that effect is given to all of its provisions, so no part will be inoperative or superfluous, void or insignificant; LBP-10-22, 72 NRC 661 (2010)
- words of a statute must be read in their context and with a view to their place in the overall statutory scheme; LBP-10-20, 72 NRC 571 (2010)

STAY
- although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 1 (2010)

SUBPART G PROCEDURES
- in a Subpart L proceeding, the board must apply the summary disposition standard set forth in Subpart G; LBP-10-20, 72 NRC 571 (2010)
- parties are permitted to propound interrogatories, take depositions, and cross-examine witnesses without leave of the board; LBP-10-16, 72 NRC 361 (2010)
- the standard for allowing the parties to conduct cross-examination is the same under Subparts G and L; LBP-10-15, 72 NRC 257 (2010)

SUBPART G PROCEEDINGS
- cross-examination occurs virtually automatically, subject to normal judicial management and the requirement to file a cross-examination plan; LBP-10-15, 72 NRC 257 (2010)

SUBPART L PROCEDURES
- the board has the primary responsibility for questioning the witnesses at any evidentiary hearing; LBP-10-16, 72 NRC 361 (2010)
- the standard for allowing the parties to conduct cross-examination is the same under Subparts G and L; LBP-10-15, 72 NRC 257 (2010)

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SUBPART L PROCEEDINGS
a party seeking to conduct cross-examination must file a written motion and obtain leave of the board; LBP-10-15, 72 NRC 257 (2010)
boards must apply the summary disposition standard set forth in Subpart G; LBP-10-20, 72 NRC 571 (2010)
discovery is generally prohibited except for specified mandatory disclosures under 10 C.F.R. 2.336(f), (a), and (b) and the mandatory production of the hearing file under 10 C.F.R. 2.1203(a); LBP-10-16, 72 NRC 361 (2010)
mandatory disclosure is the only form of discovery allowed, and all other forms are expressly prohibited; LBP-10-23, 72 NRC 692 (2010)
the mandatory disclosure provisions of 10 C.F.R. 2.336 apply; CLI-10-24, 72 NRC 451 (2010); CLI-10-25, 72 NRC 469 (2010)
SUBPART N PROCEDURES
if a hearing on a contention is expected to take no more than 2 days to complete, the board can impose the Subpart N procedures for expedited proceedings with oral hearings specified at 10 C.F.R. 2.1400-1407; LBP-10-16, 72 NRC 361 (2010)
SUMMARY DISPOSITION
any doubt as to the existence of a genuine issue of material fact is resolved against the proponent of summary disposition; LBP-10-20, 72 NRC 571 (2010)
because the burden is on the summary disposition movant, the board must examine the record in the light most favorable to the nonmoving party and give the nonmoving party the benefit of all favorable inferences that can be drawn from the evidence; LBP-10-20, 72 NRC 571 (2010)
in a Subpart L proceeding, the board must apply the summary disposition standard set forth in Subpart G; LBP-10-20, 72 NRC 571 (2010)
motions may be granted only if the truth is clear; LBP-10-20, 72 NRC 571 (2010)
movant must show that the matter entails no genuine issue as to any material fact and that movant is entitled to a decision as a matter of law; LBP-10-20, 72 NRC 571 (2010)
such motions are not a tool for trying to convince a licensing board to decide, on written submissions, genuine issues of material fact that warrant resolution at a hearing; LBP-10-20, 72 NRC 571 (2010)
summary disposition rules 2.1205 and 2.710 are substantially similar; LBP-10-20, 72 NRC 571 (2010)
the Commission generally applies the same standard for summary disposition that federal courts apply when ruling on motions for summary judgment under Rule 56 of the Federal Rules of Civil Procedure; LBP-10-20, 72 NRC 571 (2010)
to justify reopening the record to admit a new contention, the moving papers must be strong enough, in the light of any opposing filings, to avoid summary disposition, and the new information must be significant and plausible enough to require reasonable minds to inquire further; LBP-10-21, 72 NRC 616 (2010)
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT
compliance with NEPA requires that, if new and significant information arises after the date of the issuance of the EIS and before the agency decision, then NRC Staff must supplement or revise its EIS and consider such information; CLI-10-29, 72 NRC 556 (2010); LBP-10-15, 72 NRC 257 (2010); LBP-10-17, 72 NRC 501 (2010)
SUSPENSION OF PROCEEDING
although a request for suspension of a proceeding does not fit cleanly into NRC procedural rules for stays, the Commission exercises discretion and consider petitioner's request; CLI-10-17, 72 NRC 1 (2010)
consideration of pending issues will not be postponed until the resolution of other issues unrelated to the adjudication; CLI-10-17, 72 NRC 1 (2010)
TERMINATION OF PROCEEDING
extended power uprate proceeding that has been terminated may not be reopened; CLI-10-17, 72 NRC 1 (2010)
TERRORISM
contention raising question of whether a quantitative as opposed to qualitative analysis of terrorist attacks and the alternatives for mitigation and prevention is necessary is referred to the Commission as a novel issue; LBP-10-15, 72 NRC 257 (2010)

given that consideration of terrorist attacks is part of the NRC's NEPA obligations in the Ninth Circuit, the issue of whether terrorist attacks have been fully considered in the NEPA analysis for a power plant in that jurisdiction is plainly material to the decision the NRC must make; LBP-10-15, 72 NRC 257 (2010)
petitioner's assertion that terrorist-act-originated SAMA analysis is required by Ninth Circuit law satisfies the requirements of 10 C.F.R. 2.309(f)(1)(iii) that the issue be within the scope of a license renewal proceeding; LBP-10-15, 72 NRC 257 (2010)
Staff failed to disclose data underlying its terrorism analysis in the final environmental assessment and thus failed to meet the NEPA-mandated hard-look standard; CLI-10-18, 72 NRC 56 (2010)
threat of terrorist attack at spent fuel pools has been evaluated generically by NRC and special circumstances for rule waiver have not been shown; LBP-10-15, 72 NRC 257 (2010)
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preconstruction monitoring and testing to establish background information is exempted from the prohibition on commencement of construction; LBP-10-16, 72 NRC 361 (2010)
TIME LIMITED AGING ANALYSES
a license renewal applicant seeking to satisfy aging management requirements by reliance upon existing TLAAs in its current licensing basis would rely on 10 C.F.R. 54.21(c)(1)(i) or (ii); CLI-10-17, 72 NRC 1 (2010)
because environmentally adjusted cumulative usage factors are not contained in licensee's current licensing basis, they cannot be TLAAs and thereby a prerequisite to license renewal; CLI-10-17, 72 NRC 1 (2010)
license renewal applicant who chooses to rely upon an existing TLAA may demonstrate compliance with 10 C.F.R. 54.21(c)(1)(i) by showing that the existing cumulative usage factor calculations remain valid because the number of assumed transients would not be exceeded during the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
license renewal applications must include an evaluation of TLAAs demonstrating that the analyses will remain valid for the period of extended operation, have been projected to the end of the period of extended period of operation, or the effects of aging on the intended functions will be adequately managed for the period of extended operation; CLI-10-17, 72 NRC 1 (2010)
section 54.29(a) speaks of both past and future actions, referring specifically to those that have been or will be taken with respect to managing the effects of aging and TLAAs; CLI-10-17, 72 NRC 1 (2010)
the scope of a license renewal proceeding under 10 C.F.R. Part 54 encompasses a review of the plant structures and components that will require an aging management review for the period of extended operation and the plant's systems, structures, and components that are subject to TLAAs; CLI-10-17, 72 NRC 1 (2010)
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petitioner alleges release of controlled byproduct nuclear materials in containers not certified for transport of such materials on public roads and not labeled with the required labeling; DD-10-3, 72 NRC 171 (2010)
URANIUM MILL TAILINGS DISPOSAL
byproduct material from in situ extraction operations must be disposed of at existing large mill tailings disposal sites; LBP-10-16, 72 NRC 361 (2010)
URANIUM MINING AND MILLING
in cases involving ISL uranium mining and other source materials licensing, petitioner must demonstrate injury, causation, and redressability because proximity to the proposed facility alone is not adequate to demonstrate standing; LBP-10-16, 72 NRC 361 (2010)
VIOLATIONS
any employee of a licensee may not deliberately submit to the NRC information that employee knows to be incomplete or inaccurate in some respect material to the NRC; CLI-10-23, 72 NRC 210 (2010)
in the absence of evidence to the contrary, NRC does not presume that a licensee will violate agency regulations wherever the opportunity arises; CLI-10-20, 72 NRC 185 (2010)
licensee's failure to develop and implement a formalized procedure to neutralize a spill involving hydrofluoric acid, resulting in exposure to licensee operators, is a Severity Level III violation; LBP-10-18, 72 NRC 519 (2010)

materially incorrect responses to the NRC's communications are violations; CLI-10-23, 72 NRC 210 (2010)
Severity Level III violation is recategorized to a violation with no assigned severity level, based on settlement agreement; LBP-10-18, 72 NRC 519 (2010)
WAIVER OF RULE
a petition to waive a Commission regulation can be granted only in unusual and compelling circumstances; LBP-10-22, 72 NRC 661 (2010)
a prima facie showing merely requires the presentation of enough information to allow a board to infer (absent disproof) that special circumstances exist to support a rule waiver; LBP-10-15, 72 NRC 257 (2010)
absent a waiver, contentions challenging applicable statutory requirements or Commission regulations are not admissible in agency adjudications; LBP-10-15, 72 NRC 257 (2010); LBP-10-16, 72 NRC 361 (2010)
because petitioner had not made a prima facie case for rule waiver, the Board declined to certify the matter to the Commission and found that it was prohibited from considering the matter further; CLI-10-29, 72 NRC 556 (2010)
board's role in considering a petition for waiver under 10 C.F.R. 2.335 is limited to deciding whether petitioner has made a prima facie showing of special circumstances that would support a waiver; LBP-10-15, 72 NRC 257 (2010)
deferral of review of board denial of rule waiver petition did not cause irreparable injury; CLI-10-29, 72 NRC 556 (2010)
for a contention regarding environmental impacts of spent fuel storage to be within the scope of an operating license renewal proceeding, petitioner must obtain a waiver under 10 C.F.R. 2.335(d); LBP-10-15, 72 NRC 257 (2010)
if petitioner has made a prima facie showing of special circumstances for rule waiver, then the board certifies the matter to the Commission; LBP-10-15, 72 NRC 257 (2010); LBP-10-22, 72 NRC 661 (2010)
if there is no prima facie showing for a rule waiver, the board may not further consider the matter; LBP-10-22, 72 NRC 661 (2010)
in the context of a safety contention, petitioner must show a waiver of the regulation is necessary to reach a significant safety problem; LBP-10-15, 72 NRC 257 (2010)
licensing board decisions denying a petition for waiver are interlocutory and not immediately reviewable; CLI-10-29, 72 NRC 556 (2010)
petitioner has alleged sufficient new information concerning the seismic situation to raise a prima facie showing that strict application of the generic NEPA analysis of the management of spent fuel in nuclear reactors would not serve the purpose for which Part 51 Appendix B and 10 C.F.R. 51.53(c)(2) were adopted; LBP-10-15, 72 NRC 257 (2010)
petitioner has presented a prima facie showing for waiver of the NRC regulation covering the environmental impacts of spent fuel pool accidents generically, and has shown that its contention concerning earthquake-induced spent fuel pool accidents is otherwise admissible; LBP-10-15, 72 NRC 257 (2010)
the affidavit accompanying a petition for rule waiver need not be prepared by an expert; LBP-10-15, 72 NRC 257 (2010)
the Commission has set forth a four-part test for grant of a rule waiver, and all four factors must be met; LBP-10-22, 72 NRC 661 (2010)
threat of terrorist attack at spent fuel pools has been evaluated generically by NRC and special circumstances for rule waiver have not been shown; LBP-10-15, 72 NRC 257 (2010)
WASTE CONFIDENCE RULE
challenges to the Waste Confidence Rule must be made in the context of a rulemaking, not in the context of an adjudicatory proceeding; CLI-10-19, 72 NRC 98 (2010)
the Commission addresses a certified question by a licensing board on the admissibility of proposed contentions involving the Waste Confidence Rule; CLI-10-19, 72 NRC 98 (2010)

WASTE DISPOSAL
before any waste may be received at the high-level waste repository, DOE must update its application with additional information, including, specifically, additional design data obtained during construction; LBP-10-22, 72 NRC 661 (2010)
byproduct material from in situ extraction operations must be disposed of at existing large mill tailings disposal sites; LBP-10-16, 72 NRC 361 (2010)
WASTEWATER
NRC is prohibited from using NEPA to impose additional effluent limitations on an applicant's wastewater discharges to surface waters; LBP-10-14, 72 NRC 101 (2010)
WATER
applicant's climate change analysis for the 990,000-year period may be limited to the effects of increased water flow through the high-level waste repository as a result of climate change; LBP-10-22, 72 NRC 661 (2010)
WATER POLLUTION
any potential harm associated with petitioner's use of water from a water source connecting to a mining site is fairly traceable to the proposed action; LBP-10-16, 72 NRC 361 (2010)
contention is rejected as lacking support for the premise that ongoing mining operations will drain or contaminate wetlands, such that their economic benefits will be decreased; LBP-10-16, 72 NRC 361 (2010)
NRC is prohibited from using NEPA to impose additional effluent limitations on applicant's wastewater discharges to surface waters; LBP-10-14, 72 NRC 101 (2010)
standing was found for an organization representing three members living in close proximity to decommissioning site, who expressed concern that depleted uranium materials could affect a waterway abutting the property of two members; CLI-10-20, 72 NRC 185 (2010)
See also Groundwater Contamination
WATER QUALITY
challenge to the technical adequacy of baseline water quality data and adequate confinement of the host aquifer in applicant's environmental report is admissible; LBP-10-16, 72 NRC 361 (2010)
WETLANDS
contention is rejected as lacking support for the premise that ongoing mining operations will drain or contaminate wetlands, such that their economic benefits will be decreased; LBP-10-16, 72 NRC 361 (2010)
WHISTLEBLOWERS
although not required by regulation, settlement agreements that contain language reinforcing employees' rights to raise safety concerns and communicate with the NRC avoid the possibility of being construed in a way that could be a violation; DD-10-1, 72 NRC 149 (2010)
nondisparagement clauses in retention bonus agreements are common in employment agreements and NRC should not interfere with these agreements unless it finds such a clause violates 10 C.F.R. 50.7(f) or is applied in a fashion that prevents or retaliates against an employee for engaging in protected activities such as communicating with NRC; DD-10-1, 72 NRC 149 (2010)
the purpose of 10 C.F.R. 50.7(f) is to ensure that licensees do not enter into employment agreements that would prohibit, restrict, or otherwise discourage an employee or former employee from providing the NRC with information of regulatory significance; DD-10-1, 72 NRC 149 (2010)
WIND POWER
wind or solar power are not considered as stand-alone alternatives because neither sources is deemed capable of serving the purpose and need of the project, generating 1600 MWe of baseload power; LBP-10-24, 72 NRC 720 (2010)
WITHDRAWAL
an attorney is not permitted to withdraw from representing a client unless withdrawal can be accomplished without material adverse effect to the client's interests; LBP-10-21, 72 NRC 616 (2010)
See also Motions to Withdraw
WITNESSES
a board's findings regarding a particular witness's knowledge or state of mind depend, as a general rule, largely on that witness's credibility; CLI-10-23, 72 NRC 210 (2010)

diligent, even aggressive, probing for weaknesses in a witness's or counsel's position may be necessary if presiding officers are to fulfill their duty to develop an adequate record that will contribute to informed decisionmaking; CLI-10-17, 72 NRC 1 (2010)
licensing board findings of fact that turn on witness credibility receive the Commission's highest deference on appeal; CLI-10-23, 72 NRC 210 (2010)
WITNESSES, EXPERT
on appeal, the Commission is loath to address complaints concerning a board's skepticism of expert witness's testimony, given that the Commission lacks the Board's ability to observe the demeanor of the parties' expert witnesses in general and petitioner's witness in particular; CLI-10-17, 72 NRC 1 (2010)
petitioner does not need to provide expert opinion or a substantive affidavit in order to satisfy 10 C.F.R. 2.309(f)(1)(v); LBP-10-15, 72 NRC 257 (2010)
ZONE OF INTERESTS
petitioner's claimed injury must be arguably within the zone of interests protected by the governing statute in the proceeding; LBP-10-16, 72 NRC 361 (2010)
preservation of Native American cultural traditions is a protected interest under federal law; LBP-10-16, 72 NRC 361 (2010)
to determine whether an interest is in the zone of interests of a statute, it is necessary first to discern the interests arguably to be protected by the statutory provision at issue and then to inquire whether petitioner's interests affected by the agency action are among them; LBP-10-16, 72 NRC 361 (2010)

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