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October 1, 2011 – December 31, 2011

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PREFACE

This is Book II of the seventy-fourth volume of issuances (427–872) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Boards, Administrative Law Judges, and Office Directors. It covers the period from October 1, 2011, to December 31, 2011. Book I covers the period from July 1, 2011 to September 30, 2011.

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

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

On June 29, 1990, however, the Commission voted to abolish the Atomic Safety and Licensing Appeal Panel, and the Panel ceased to exist as of June 30, 1991. Since then, the Commission itself reviews Licensing Board and other adjudicatory decisions, as a matter of discretion. *See* 56 FR 29403 (1991).

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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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In the Matter of **Docket Nos. 50-275-LR**
50-323-LR

PACIFIC GAS AND ELECTRIC COMPANY
(Diablo Canyon Nuclear Power Plant, Units 1 and 2) **October 12, 2011**

RULES OF PRACTICE: APPEALS

Section 2.311(d)(1) provides for appeals as of right on the question whether a request for hearing should have been wholly denied.

INTERVENTION RULINGS: STANDARD OF REVIEW

The Commission will defer to the Board's rulings on contention admissibility absent an error of law or abuse of discretion.

LICENSE RENEWAL PROCEEDINGS: FINDINGS

Under section 54.29(a), an operating license may be renewed if we find, among other things, that actions have been identified and have been or will be taken with respect to managing the effects of aging during the period of extended operation on the functionality of certain identified structures and components.

LICENSE RENEWAL PROCEEDINGS: SCOPE

License renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to the NRC's ongoing compliance oversight activity.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

The contention admissibility rules require that contentions be raised with sufficient detail to put the parties on notice of the issues to be litigated.

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

The support required for a contention necessarily will depend on the issue sought to be litigated.

NATIONAL ENVIRONMENTAL POLICY ACT: COUNCIL ON ENVIRONMENTAL QUALITY

The Commission looks to Council on Environmental Quality (CEQ) regulations for guidance, including section 1502.22. But its longstanding policy is that the NRC, as an independent regulatory agency, is not bound by those portions of CEQ's NEPA regulations that, like section 1502.22, have a substantive impact on the way in which the Commission performs its regulatory functions.

LICENSE RENEWAL PROCEEDINGS: SCOPE

The NRC's regulatory review process for license renewal divides the environmental review into two parts: those issues deemed appropriate for generic analysis and those warranting a site-specific environmental impact assessment. Issues found not to require a plant-specific environmental analysis are designated "Category 1" issues. For "Category 1" issues, the NRC's Generic Environmental Impact Statement (GEIS) for license renewal provides a generic environmental analysis — generally applicable either to all plants, or to a distinct subcategory of plants. Because "Category 1" issues already have been reviewed on a generic basis, an applicant's environmental report need not provide a site-specific analysis of these issues.

RULES OF PRACTICE: WAIVER OF RULE

Section 2.335(b) provides an exception to the general rule that our regulations are not subject to challenge in adjudicatory proceedings. In accordance with

this section, a party to an adjudicatory proceeding may petition for a waiver of "a specified Commission rule or regulation or any provision thereof." "The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which [it] was adopted." In order to meet this standard, the party seeking a waiver must attach an affidavit that, among other things, "state[s] with particularity the special circumstances [claimed] to justify the waiver or exception requested."

RULES OF PRACTICE: CONTENTION ADMISSIBILITY

A licensing board may not add support where it is lacking.

MEMORANDUM AND ORDER

Today we address several matters associated with the Atomic Safety and Licensing Board's decision in LBP-10-15, which granted a request for hearing and petition to intervene filed by the San Luis Obispo Mothers for Peace (SLOMFP) concerning Pacific Gas and Electric Company's (PG&E) application to renew the operating licenses for Diablo Canyon Nuclear Power Plant Units 1 and 2 (Diablo Canyon) for an additional 20 years.[1] For the reasons set forth below, we affirm in part, and reverse in part, the Board's decision.

I. BACKGROUND

In response to a notice of opportunity for hearing published in the *Federal Register,*[2] SLOMFP timely filed a request for hearing and petition for leave to intervene, submitting five proposed contentions.[3] Because two of the contentions

[1] LBP-10-15, 72 NRC 257 (2010).

[2] 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; and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information (SUNSI) for Contention Preparation, 75 Fed. Reg. 3493, 3493 (Jan. 21, 2010).

[3] Request for Hearing and Petition to Intervene by San Luis Obispo Mothers for Peace (Mar. 22, 2010) (Request for Hearing).

challenge certain NRC regulations, SLOMFP contemporaneously submitted a petition for waiver pursuant to 10 C.F.R. § 2.335(b).[4]

PG&E opposed the request for hearing in its entirety, arguing that SLOMFP failed to submit an admissible contention.[5] The Staff argued that the Board should grant the request for hearing in part.[6] Both PG&E and the Staff opposed SLOMFP's waiver petition.[7]

Following a prehearing conference, the Board granted SLOMFP's hearing request.[8] The full Board held that SLOMFP had demonstrated standing, and admitted two contentions.[9] The Board also found that SLOMFP had made a prima facie case for a waiver with regard to a third contention, and therefore certified the matter to us in accordance with 10 C.F.R. § 2.335(d).[10] A Board majority admitted a fourth contention; Judge Abramson dissented.[11]

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[4] 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). SLOMFP supported its petition with a declaration from its counsel. *See* 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 Declaration).

[5] Applicant's Answer to Petition to Intervene and Response to Requests for Waivers (Apr. 16, 2010) (PG&E Answer).

[6] NRC Staff's Answer to the San Luis Obispo Mothers for Peace Request for Hearing and Petition to Intervene (Apr. 16, 2010) (NRC Staff Answer).

[7] NRC Staff's Response to the Petition for Waiver of Commission Regulations Filed by San Luis Obispo Mothers for Peace (Apr. 16, 2010) (NRC Staff Response to Waiver Petition); PG&E Answer at 3. SLOMFP filed a motion for leave to reply to the answers opposing the waiver petition. San Luis Obispo Mothers for Peace's Motion for Leave to Reply to Oppositions to Waiver Petition (Apr. 23, 2010); 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) (SLOMFP Reply). PG&E and the Staff opposed the motion. 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). The Board denied the motion, but requested additional briefing from SLOMFP. *See* Licensing Board Order (Denying Motion for Leave to File a Reply to Waiver Petition and Directing the Filing of a Brief) (May 4, 2010) at 1 (unpublished). *See generally* San Luis Obispo Mothers for Peace's Brief Regarding Waiver Standard (May 13, 2010).

[8] LBP-10-15, 72 NRC at 345.

[9] *Id.* The Board referred to us its ruling on one of these contentions and posed questions for our consideration, on the ground that the contention raises "novel legal or policy issues." *Id.* at 325.

[10] *Id.* at 306, 345-46. The Board found that the contention otherwise satisfied our contention admissibility criteria, and admitted the contention subject to our ruling on the merits of the waiver petition.

[11] *Id.* at 346; *id.* (Separate Opinion by Judge Abramson, Concurring in Part and Dissenting in Part), at 347-59 (Dissent). On April 12, 2011, PG&E informed the Board and the parties that it requested a delay in the "final processing" of its license renewal application, "'such that the renewed operating
(Continued)

PG&E has timely filed an appeal pursuant to 10 C.F.R. § 2.311(d), arguing that the hearing request should have been wholly denied.[12] The Staff has filed a petition for interlocutory review challenging two admitted contentions.[13] In response, PG&E observes that because it has appealed the Board's decision, "there should be no need for a Commission finding that the standards for interlocutory review have been met."[14] On this point, we agree. Given that we have before us PG&E's appeal as of right, and that the Staff has filed a comprehensive answer to that appeal, we need not reach the question whether the Staff's petition is proper.

II. DISCUSSION

Section 2.311(d)(1) provides for appeals as of right on the question whether a request for hearing should have been wholly denied.[15] In ruling on PG&E's appeal, we apply a deferential standard of review. That is, we will defer to the Board's rulings on contention admissibility absent an error of law or abuse of discretion.[16] We discuss each contention in turn.

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licenses, if approved, would not be issued until after PG&E has completed [certain seismic studies] and submitted a report to the NRC addressing the results of those studies.'" Letter from David A. Repka, counsel for PG&E, to Administrative Judges (Apr. 12, 2011), at 1 (quoting Letter from John T. Conway, PG&E, to U.S. NRC (Apr. 10, 2011)). Staff revised its review schedule accordingly, noting that the SER would be supplemented, as necessary, considering any relevant new information from the seismic studies. The schedule for other milestones, including the draft and final Supplemental Environmental Impact Statement (SEIS), was deferred until a later date and will be based on a timeline coordinated with the expected completion of the seismic studies. Letter from Brian Holian, Director, Division of License Renewal, Office of Nuclear Reactor Regulation, to PG&E (May 31, 2011). This will allow the Staff to address any new and significant information arising from PG&E's seismic studies in the SEIS. *See infra* note 177.

[12] Applicant's Notice of Appeal of LBP-10-15 (Aug. 16, 2010); Applicant's Brief in Support of Appeal from LBP-10-15 (Aug. 16, 2010) at 1 (PG&E Appeal). The Staff agrees in part, and disagrees in part, with the PG&E Appeal. *See* NRC Staff's Answer to Applicant's Appeal of Atomic Safety and Licensing Board Decision (LBP-10-15) (Aug. 26, 2010) at 1 (NRC Staff Answer to PG&E's Appeal). SLOMFP opposes the appeal. *See* San Luis Obispo Mothers for Peace's Response to Pacific Gas and Electric Company's Appeal from LBP-10-15 (Aug. 26, 2010) at 1 (SLOMFP Answer to PG&E Appeal).

[13] *See* NRC Staff's Petition for Interlocutory Review of Atomic Safety and Licensing Board Decision (LBP-10-15) Admitting an Out of Scope Safety Contention and Improperly Recasting an Environmental Contention (Aug. 19, 2010).

[14] Applicant's Answer in Support of the NRC Staff Petition for Interlocutory Review of LBP-10-15 (Aug. 30, 2010) at 2. *See also* San Luis Obispo Mothers for Peace's Response to NRC Staff's Petition for Interlocutory Review of LBP-10-15 Regarding Contentions TC-1 and EC-1 (Aug. 26, 2010) at 1.

[15] 10 C.F.R. § 2.311(d)(1).

[16] *See, e.g., Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (2009); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-06-24, 64 NRC 111, 121 (2006). SLOMFP's demonstration of standing is not at issue on appeal.

A. Contention TC-1

As originally submitted, the contention stated:

> The applicant, [PG&E], has failed to satisfy 10 C.F.R. § 54.29's requirement to demonstrate a reasonable assurance that it can and will "manag[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.[17]

Under section 54.29(a), an operating license may be renewed if we find, among other things, that "[a]ctions have been identified and have been or will be taken with respect to . . . managing the effects of aging during the period of extended operation on the functionality of [certain identified] structures and components."[18] Referencing three NRC inspection reports from February and August 2009, and February 2010, SLOMFP asserted 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 [Diablo Canyon]."[19] SLOMFP claimed that the inspection reports "document an ongoing failure of PG&E to properly identify, evaluate, and resolve problems and manage safety equipment."[20] SLOMFP noted that current personnel will be in place to manage aging equipment during the license renewal term.[21] According to SLOMFP, the contention is material to the findings the NRC must make because "PG&E has demonstrated a consistent pattern of inadequate management of safety equipment."[22]

As admitted and reframed by a majority of the Board, Contention TC-1 states:

> The applicant, [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

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[17] Request for Hearing at 2.

[18] 10 C.F.R. § 54.29(a)(1). The license renewal applicant must identify the structures and components subject to review in accordance with 10 C.F.R. §§ 54.4 and 54.21.

[19] Request for Hearing at 3. Specifically, SLOMFP referenced the "semi-annual trend review" section of the inspection reports, each of which describes an "adverse trend in problem evaluation." *Id.* at 3-5. SLOMFP also cited five illustrative events from one of the inspection reports. *Id.* at 4-5.

[20] *Id.* at 3.

[21] *Id.*

[22] *Id.* at 5-6. Both PG&E and the Staff opposed the admission of Contention TC-1. PG&E Answer at 10; NRC Staff Answer at 15.

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.[23]

In its analysis, the Board majority itself formulated, and answered, what it determined to be the key legal question on which the admissibility of Contention TC-1 hinged: "whether NRC is prohibited from considering a licensee's current ongoing pattern of difficulties in managing its design basis programs and activities" when making the determination to renew the operating license under section 54.29(a).[24] Reviewing the regulatory history and language of sections 54.29 and 54.30, in addition to Commission precedent, the majority determined that nothing in the regulations prohibited consideration of past or current performance issues.[25] Additionally, the majority cited examples of situations in which we acknowledged that past or current performance could inform the review of a license renewal application.[26] Ultimately, the majority crafted a "standard" for admitting a contention based on a license renewal applicant's past and current performance.[27] Applying this standard, the majority found SLOMFP's Contention TC-1 to be within the scope of the proceeding because it "focuses on the future," and relies on the inspection reports not as challenges to PG&E's current compliance, but as "'objective evidence'" "that PG&E may not, in fact, adequately manage aging in the future . . . as required by [section] 54.29(a)."[28]

The majority went on to select the findings from the inspection reports that established what it saw as the "key link" between the "pattern of management

[23] LBP-10-15, 72 NRC at 360 (Attachment A).

[24] *Id.* at 332.

[25] *Id.* at 333-40. The majority found the language of section 54.29(a) to support its view — in particular, the phrases "will be taken," and "will continue to be conducted," which the majority interpreted to require "*predictive* findings about what the NRC thinks the applicant will *actually do* in the future." *Id.* at 334 (emphasis in original).

[26] *See, e.g., id.* at 334-35 (citing *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995)); *id.* at 336 (citing Final Rule, Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,952 (Dec. 13, 1991) (License Renewal Rule)).

[27] *Id.* at 336. It held 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 [period of extended operation], can be an admissible contention under 10 C.F.R. § 54.29(a)." *Id.*

[28] *Id.* at 341. The majority characterized the inspection reports as "highly credible 'objective evidence' (i.e., findings by the NRC itself that [Diablo Canyon] has a continuing adverse trend)" sufficient to rebut the general presumption that applicants will comply with NRC requirements. *Id. See also id.* at 335 (referencing *GPU Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000), and explaining that "the assumption of compliance is only an assumption, and is rebuttable").

failures" and PG&E's ability to manage age-related degradation: "poor licensee management of plant design/licensing basis."[29] The majority then reframed Contention TC-1 to focus on this "key link" by inserting the statement that "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."[30]

Judge Abramson dissented, stating that the majority's ruling: (1) improperly recast the contention "to address an issue not argued by SLOMFP"; (2) "misinterpreted [NRC] regulations and . . . precedent to enable a challenge to management"; and, based on these errors, (3) "admit[ted] a contention [that] does nothing more than provide 'notice' of issues [SLOMFP] intends to raise and deferring all the relevant threshold matters to [a] hearing on the merits," vitiating the "strict by design" principles of contention admissibility.[31] According to Judge Abramson, the majority's findings are "based upon [the majority's] own detailed review of the inspection reports, and . . . unsupported by [SLOMFP's] pleadings."[32]

On appeal, PG&E asserts that the Board erred in admitting the contention, arguing that Contention TC-1 is inadmissible because it is outside the scope of a license renewal proceeding and it fails "to demonstrate that the current adverse trend at issue gives rise to a genuine dispute regarding aging management."[33] On both points, we agree with PG&E and overturn the Board's ruling.

With regard to the scope of the proceeding, PG&E and the Staff argue that Contention TC-1 impermissibly raises issues that are "relevant to current plant operation" and "are being addressed by the NRC's established and ongoing oversight activities."[34] PG&E argues that the Board majority "in effect assumes that a current adverse trend in plant performance will continue unabated (or resurface) many years later in the period of extended operation."[35] Further, according to PG&E, there is "no basis to assume that present performance is indicative of future program implementation, precisely because the Commission

[29] *Id.* at 341.

[30] *Id.* at 342 (emphasis added).

[31] *Id.* (Dissent at 347-48).

[32] *Id.* (Dissent at 348).

[33] PG&E Appeal at 2 (emphasis omitted).

[34] *Id.* at 4; NRC Staff Answer to PG&E Appeal at 3. PG&E does not dispute the Board's reading of the "predictive" nature of 10 C.F.R. § 54.29(a). PG&E Appeal at 5-6. The Staff disagrees that the Board correctly interpreted section 54.29(a) to require a "predictive" finding. NRC Staff Answer to PG&E Appeal at 3 n.11. Given that we reverse the Board's decision to admit Contention TC-1 on other grounds, we need not consider the question today.

[35] PG&E Appeal at 7. Thus, PG&E faults the Board majority's "willingness to consider current (or past) performance as evidence of future performance" as based on "an untenable leap in logic." *Id.*

is relying on its regulatory processes to prevent such a result."[36] Finally, PG&E challenges the Board's "standard" for judging current and past performance, describing it as "undefined and subjective . . . , with no basis in the license renewal rule or in the Commission's principles of license renewal."[37]

We agree that Contention TC-1 falls outside the scope of this proceeding.[38] Claims of "management competence" generally relate to current operations, and Contention TC-1 is fundamentally similar to a contention that we recently rejected in the *Prairie Island* proceeding for raising current operational issues. In *Prairie Island,* we found that the Board erred in admitting a contention pertaining to the plant's "safety culture."[39] Similar to Contention TC-1, the contention in *Prairie Island* was supported by citations to routine inspection findings made by the Staff as part of its regulatory oversight of the current operation of the plant.[40]

We reversed the *Prairie Island* Board's decision to admit the contention on two grounds, one of which was that the contention improperly expanded the scope of the license renewal proceeding. We noted our unambiguous statement in the License Renewal Rule that "'license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to [our] ongoing compliance oversight activity.'"[41] We explained that the rule was developed to exclude from review conceptual issues "such as operational history, quality assurance, quality control, *management competence,* and human factors," in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components.[42] And we found that litigation of the "safety culture" contention in that proceeding would necessitate just such an analysis of the conceptual issues that we had excluded from review.[43]

Our reasoning in *Prairie Island* squarely applies here. Contention TC-1 improperly raises issues that are beyond the scope of a license renewal proceeding.[44] The matters identified in the inspection reports are subject to the Staff's regulatory oversight process for operating reactors. Litigation of the contention necessarily

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[36] *Id.*

[37] *Id.*

[38] Our decision rests on the facts and circumstances of this case. We need not address the Board's establishment of a "standard" for contentions of this type in license renewal proceedings.

[39] *Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 484 (2010).

[40] *See id.* at 485-86.

[41] *Id.* at 490 (quoting License Renewal Rule, 56 Fed. Reg. at 64,952).

[42] *Id.* at 491 (emphasis added). *See also Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 453-56, 460-63 (2010) (explaining the scope of license renewal safety review).

[43] *Prairie Island,* CLI-10-27, 72 NRC at 491. *See also* Final Rule: "Nuclear Power Plant License Renewal; Revisions," 60 Fed. Reg. 22,461, 22,485 (May 8, 1995).

[44] *See* 10 C.F.R. § 2.309(f)(1)(iii).

would involve review of the adequacy of PG&E's efforts to address the current operational issues identified in the reports. This is precisely the type of duplicative review that appropriately is excluded from a license renewal proceeding; we need not revisit our well-established, ongoing compliance oversight activities.

Perhaps more important, the contention fails to demonstrate the existence of a genuine dispute with the application. PG&E argues that SLOMFP "did not identify or address any particular aspect of the license renewal application, the integrated plant assessment, the aging management review, or an [aging management program]."[45] In short, PG&E asserts that SLOMFP did not offer any support "to establish a nexus between management of the design and licensing bases and the issues relevant to Part 54."[46] We agree. SLOMFP makes generalized assertions that current management personnel will be in place during the period of extended operation, and that aging issues are more "difficult to manage" than current issues. But SLOMFP offers no explanation how its assertions are directly relevant to PG&E's ability to manage the effects of aging during the renewal term.[47] SLOMFP provides no support — specific facts, references, or expert opinion — for its proposition that continuity of plant personnel will lead to safety issues in the period of extended operation. Moreover, SLOMFP challenges no aspect of the license renewal application.

A statement made by SLOMFP's counsel at the prehearing conference highlights the lack of support in SLOMFP's petition. Counsel argued that Contention TC-1 focuses on the execution of PG&E's plans to manage aging, but counsel

[45] PG&E Appeal at 12.

[46] *Id.*

[47] The majority's reliance on the *Georgia Tech* case is misplaced. *See* LBP-10-15, 72 NRC at 334-35. *Georgia Tech* involved renewal of a research and test reactor license under Part 50, and Part 54 does not apply to research and test reactors. *See* 10 C.F.R. § 54.1 (explaining that Part 54 "governs the issuance of renewed operating licenses and renewed combined licenses for nuclear power plants licensed pursuant to Sections 103 or 104b of the Atomic Energy Act of 1954, as amended, and Title II of the Energy Reorganization Act of 1974"); License Renewal Rule, 56 Fed. Reg. at 64,962 ("Nonpower reactors, including research and test reactors, . . . differ as a class from nuclear power plants; they are not covered by 10 CFR part 54."). Rather than the limited scope of review called for under Part 54, renewal of a license for a research reactor is essentially a fresh operating license review. *See* 10 C.F.R. §§ 50.33, 50.34. *See generally* NUREG-1537, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors," Parts 1 and 2 (Feb. 1996) (ADAMS Accession Nos. ML042430055, ML042430048). In addition, in upholding the *Georgia Tech* Board's decision to admit a "management integrity" contention, the Commission relied upon specific supporting information, including references to a serious incident involving the shutdown of the reactor, the fact that the management responsible for the incident remained in place, a purported climate of reprisals for bringing forward safety issues, "and, significantly, [a reference] to at least one expert witness in support of the contention." *Georgia Tech,* CLI-95-12, 42 NRC at 118-22. Such specific, supported assertions are not present here. *See* SLOMFP Request for Hearing at 3; SLOMFP Reply Regarding Hearing Request at 2.

failed to identify problems with current management and explain how, in turn, those unidentified problems might undermine one or more of PG&E's proposed aging management programs:

> Ms. Curran: . . . . 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?[48]

SLOMFP would have us guess as to the nature of the deficiencies in PG&E's plans to manage aging, and hypothesize as to how such purported deficiencies might affect the reasonable assurance finding in section 54.29(a). Instead, the Board majority itself improperly sought to establish a nexus between the license renewal application and some aspect of the referenced inspection reports.[49] And, as Judge Abramson suggested, the majority would have us wait until the hearing on the merits before these issues are explored in further detail.[50] But in the context of an adjudicatory proceeding, our contention admissibility rules require that contentions be raised with sufficient detail to put the parties on notice of the issues to be litigated.[51] Contention TC-1 falls far short of this standard. Accordingly, we find that the Board erred in admitting Contention TC-1.

Finally, we do not take lightly claims questioning the ability of plant management to safely operate the facility. To the extent SLOMFP believes there are existing management competence questions at Diablo Canyon that merit immediate action, then its remedy is to direct the Staff's attention to those matters by filing a request for action in accordance with 10 C.F.R. § 2.206.[52]

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[48] Tr. at 55-56.

[49] *See Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552-53 (2009) (stating that "[o]ur contention pleading rules are designed to ensure . . . that only well-defined issues are admitted for hearing," and that "a board should not add material not raised by a petitioner in order to render a contention admissible"); *Andrew Siemaszko,* CLI-06-16, 63 NRC 708, 720-21 (2006) ("The [b]oard must not redraft an inadmissible contention to cure deficiencies and thereby render it admissible."). *See also Arizona Public Service Co.* (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

[50] *See* LBP-10-15, 72 NRC at 347-48 (Dissent).

[51] *See* 10 C.F.R. § 2.309(f)(1)(v), (vi).

[52] *See Prairie Island,* CLI-10-27, 72 NRC at 492.

B. Contention EC-1

As admitted by the Board, Contention EC-1 states:

> 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).[53]

In its hearing request SLOMFP argued that the SAMA analysis in PG&E's Environmental Report is deficient because it fails to discuss the Shoreline Fault[54] — a recently identified fault located offshore of Diablo Canyon.[55] Considering that fire and seismic severe accident contributors identified in the SAMA analysis are "'disproportionately dominant when compared to all external events,'" SLOMFP asserted that PG&E's SAMA analysis is incomplete without considering information concerning the Shoreline Fault.[56] Specifically, SLOMFP asserted that the Staff's ability to satisfy its NEPA obligations will be undermined if PG&E either fails to include seismic information from the Shoreline Fault in its SAMA analysis, or if PG&E, in omitting the information, fails to explain its absence and justify that the overall costs of obtaining it are "exorbitant."[57]

SLOMFP claimed that, while the Shoreline Fault is mentioned in the Environmental Report, the discussion is limited to a description of PG&E's and the Staff's preliminary deterministic analyses regarding the impact of the fault on the current operability of the plant, and fails to specify that the Shoreline Fault is the subject of ongoing studies being conducted by PG&E and the United States Geological Survey.[58] According to SLOMFP, PG&E's preliminary deterministic analyses are insufficient for the purposes of the SAMA analysis because they were conducted

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[53] LBP-10-15, 72 NRC at 360 (Attachment A). *See also* Request for Hearing at 8. Section 51.53(c)(3)(ii)(L) requires a license renewal applicant to provide a SAMA analysis "if the [S]taff has not previously considered severe accident mitigation alternatives" for the subject plant.

[54] Request for Hearing at 13.

[55] Diablo Canyon Power Plant, License Renewal Application, Appendix E, Environmental Report, at 5-4 (Environmental Report). PG&E notified the NRC Staff of the discovery of the fault on November 14, 2008. *Id. See also* 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) (ADAMS Accession No. ML090330523).

[56] Request for Hearing at 12-14 (quoting Environmental Report, Attachment F, at F-65).

[57] *Id.* at 13-16 (citing 40 C.F.R. § 1502.22).

[58] *Id.* at 13 (citing Environmental Report at 5-2, 5-4 to 5-5).

for the purpose of evaluating the impact of the fault on current operations, and a probabilistic risk assessment (PRA), rather than a deterministic analysis, is the "'accepted and standard practice in SAMA analyses.'"[59] Relying on 40 C.F.R. § 1502.22, a Council on Environmental Quality (CEQ) regulation, SLOMFP thus argued that 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."[60] Further, SLOMFP questioned PG&E's ability to justify the exclusion of the information, suggesting that "the only cost of obtaining the information is the cost of waiting for completion of the Shoreline Fault study," which SLOMFP projected to "be available by 2013 at the latest."[61] PG&E opposed the admission of Contention EC-1 in its entirety.[62] The Staff opposed the contention in part, but did not object to its admission to the extent that the SAMA analysis prepared by PG&E does not include a discussion of the Shoreline Fault.[63]

The Board admitted Contention EC-1 as a "contention of omission."[64] The Board acknowledged SLOMFP's arguments regarding the need for a probabilistic risk assessment of the Shoreline Fault and the Staff's identification of areas requiring additional information.[65] The Board explained, however, that at the contention admissibility stage, "[i]t is simply not appropriate for us to here decide

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[59] *Id.* at 14 (quoting *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 340 (2006)). At the prehearing conference, there appeared to be some confusion as to whether we have ruled that a probabilistic risk assessment is standard practice in SAMA analyses. *See* Tr. at 145, 192. To clear up any confusion, we have not considered the question whether a probabilistic risk assessment, as a general matter, is the only "accepted and standard practice in SAMA analyses." On a related note, the record also appears to reflect some confusion among the Board and the parties regarding the technical terminology associated with seismic probabilistic risk assessments and SAMA analyses, and the relationship between the two concepts. For example, at the prehearing conference the Board appeared to be using the terms "PRA" and "SAMA analysis" interchangeably. *See, e.g.,* Tr. at 137-38. We mention this to ensure that technical terminology is used in a precise and consistent manner.

[60] Request for Hearing at 14 (citing 40 C.F.R. § 1502.22, which pertains to inclusion in an EIS of incomplete or unavailable information relevant to "reasonably foreseeable significant adverse impacts").

[61] *Id.* at 14-15. Given that Diablo Canyon's operating licenses are not due to expire until 2024 and 2025, SLOMFP asserted that PG&E has sufficient time to conduct a SAMA analysis that takes into account the information on the Shoreline Fault study. *Id.* at 15.

[62] *See* PG&E Answer at 13-21.

[63] *See* NRC Staff Answer at 26-34.

[64] LBP-10-15, 72 NRC at 292.

[65] *See id.* at 290. According to the Staff, there are three areas requiring additional information: "(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; and (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." NRC Staff Answer at 29.

what additional information (whether a [probabilistic risk assessment] or the three items listed by the Staff), if any, is necessary to cure the [claimed] deficiency and to satisfy 40 C.F.R. § 1502.22, NEPA, and 10 C.F.R. § 51.53(c)(3)(ii)(L)."[66] For the Board, it was enough that SLOMFP:

(1) cited the section 51.53(c)(3)(ii)(L) requirement that PG&E provide a SAMA analysis;

(2) cited 40 C.F.R. § 1502.22 for the proposition that "complete information" is required unless its omission is justified;

(3) noted PG&E's statement that fire and seismic events are disproportionately dominant in its SAMA analysis;

(4) noted there is no mention of the Shoreline Fault in PG&E's SAMA analysis;

(5) referenced the preliminary nature of the deterministic assessment that had been conducted for the analysis of the current operability of the plant;

(6) claimed that a probabilistic risk assessment, as opposed to a deterministic assessment, is the "preferred" approach for SAMA analyses; and

(7) asserted that ongoing studies of the Shoreline Fault are slated to provide additional information about the fault by 2013.[67]

Distinguishing its contention admissibility ruling from a merits decision, the Board explained that it "determine[d] only that SLOMFP has raised a material issue under NEPA, not whether its position is correct."[68] Accordingly, the Board narrowed the contention to exclude SLOMFP's "adequacy" arguments.[69]

On appeal, PG&E maintains that SLOMFP has not raised a genuine dispute with the SAMA analysis because it has not called into question either the validity of PG&E's assessment of seismic risk, or PG&E's evaluation of the uncertainty in its analysis.[70] Rather, PG&E asserts, the Board improperly credits the Staff's and SLOMFP's mistaken claim that there is an "omission" in the SAMA analysis.[71] In PG&E's view, Contention EC-1 is an "adequacy" challenge, and so framed, must provide sufficient support "to show that PG&E's SAMA analysis does not bound

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[66] LBP-10-15, 72 NRC at 290.

[67] *See id.* at 287-92.

[68] *Id.* at 288.

[69] *Id.* at 292.

[70] PG&E Appeal at 15-18.

[71] *Id.* at 15 & n.9. *See also id.* at 16 (stating that "[f]or contention admissibility purposes, 'preliminary' information is not the same as 'omitted' information").

the effects of the Shoreline Fault."[72] PG&E also asserts that the Board erred in basing its admissibility determination on 40 C.F.R. § 1502.22 because the NRC, having not expressly adopted that CEQ regulation, is not bound by it.[73]

The Staff does not oppose the admissibility of the narrowed version of the contention admitted by the Board.[74] In the Staff's view, the contention is material to the findings it must make under 10 C.F.R. § 51.53(c)(3)(ii)(L) because PG&E's Environmental Report omits a discussion of "how or whether PG&E's [Environmental Report] considered the effects of the Shoreline Fault in deriving the SAMA analysis."[75] Moreover, the Staff asserts, "PG&E's bounding arguments go to the merits in scoping the SAMA, not on what was considered for purposes of NEPA's hard-look consideration."[76] However, the Staff agrees with PG&E that 40 C.F.R. § 1502.22 is not binding on the NRC.[77]

We decline to disturb the Board's decision to admit Contention EC-1. The Board's decision highlights its thorough, methodical application of the six contention admissibility factors under 10 C.F.R. § 2.309(f)(1). PG&E has not shown that the Board committed reversible error. However, as discussed below, we reformulate the contention to the extent it would make 40 C.F.R. § 1502.22 binding on the NRC.

PG&E cites two of our decisions in support of its argument that SLOMFP failed to raise a genuine dispute with the SAMA analysis. PG&E quotes a recent *Pilgrim* decision for the proposition that "the key consideration in determining materiality of a SAMA contention is whether it purports to show that an 'additional SAMA should have been identified as potentially cost-beneficial,'"[78] and notes that SLOMFP did not "posit any new SAMA to be considered" or point to an already-identified SAMA that might become cost-beneficial after addressing the Shoreline Fault.[79] But our decision in *Pilgrim* involved a request for additional

[72] *Id.* at 15.

[73] *Id.* at 18 & n.11. Furthermore, asserts PG&E, even if 40 C.F.R. § 1502.22 were binding on the NRC, it does not apply in this proceeding because SLOMFP has not shown that information about the Shoreline Fault is "'essential to a reasoned choice among alternatives,'" or in other words, "essential" to the SAMA analysis. *Id.* at 18 (quoting 40 C.F.R. § 1502.22(a)) (emphasis omitted).

[74] NRC Staff Answer to PG&E Appeal at 5-6. The Staff disagrees with PG&E regarding the existence of an omission. *See id.* at 7 (stating that "where, as here, the Applicant has failed to include relevant information in a SAMA analysis, the Staff is of the view that such omissions must be subject to challenge for 10 C.F.R. § 51.53(c)(3)(ii)(L) to have any meaning").

[75] *Id.* at 5-6.

[76] *Id.* at 6.

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

[78] PG&E Appeal at 16 (quoting *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-09-11, 69 NRC 529, 533 (2009)) (emphasis omitted).

[79] *Id.* at 17.

briefing on a grant of summary disposition, which is a merits determination.[80] Our statement regarding the "materiality" of the contention should be read in the context of the issue involved in that case, which was whether the intervenor raised a genuine material dispute for the purposes of surviving summary disposition — a more rigorous evidentiary showing than that required to establish an admissible contention.[81]

PG&E likewise reads our decision in *McGuire/Catawba* out of context. PG&E argues that the decision stands for the proposition that "a petitioner must approximate the relative cost and benefit of a challenged SAMA or provide at least some ballpark consequence and implementation costs should the SAMA be performed."[82] But in *McGuire/Catawba,* our statement that "the [p]etitioners have done nothing to indicate the approximate relative cost and benefit of the SAMA," was in direct response to the portion of the contention at issue in that proceeding — there, unlike here, the petitioner had asserted that a particular mitigation alternative should have been included in the applicant's SAMA analysis.[83] It does not follow that in every proceeding in which a SAMA-related contention is filed, the contention must be supported in exactly the same way. The support required for a contention necessarily will depend on the issue sought to be litigated.[84]

Much is made by PG&E as to whether the contention is properly characterized as one of "omission" or "adequacy."[85] Contrary to PG&E's view, however, characterizing Contention EC-1 as a contention of "omission" or "adequacy" does not — in this case — answer the question whether the contention is admissible. SLOMFP provides support for its view that information on the Shoreline Fault should be included; thus, whether a contention of "omission" or of "adequacy,"

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[80] *See Pilgrim,* CLI-09-11, 69 NRC at 533.

[81] *See* Final Rule: "Changes to Adjudicatory Process," 69 Fed. Reg. 2182, 2190 (Jan. 14, 2004) ("The contention standard does not contemplate a determination of the merits of a proffered contention."). *See also* Final Rule: "Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process," 54 Fed. Reg. 33,168, 33,171 (Aug. 11, 1989) ("[A]t the contention filing stage the factual support necessary to show that a genuine dispute exists need not be in affidavit or formal evidentiary form and need not be of the quality necessary to withstand a summary disposition motion.").

[82] PG&E Appeal at 16 (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)).

[83] *McGuire/Catawba,* CLI-02-17, 56 NRC at 12. *See also* SLOMFP Answer to PG&E Appeal at 7. The contention at issue in *McGuire/Catawba* was a consolidated version of three proposed contentions. One of the bases for this consolidated contention related to the consideration of a particular mitigation alternative. *McGuire/Catawba,* CLI-02-17, 56 NRC at 5-6 & n.9. We found that portion of the contention inadmissible for lack of support. *Id.* at 11. As discussed below, the remaining portion of the contention, which challenged the failure of the applicant to consider information from a study in its SAMA analysis, was admitted. *Id.* at 6-11. *See infra* notes 86-91 and accompanying text.

[84] *See* 10 C.F.R. § 2.309(f)(1)(v), (vi).

[85] *See* PG&E Appeal at 15-16.

EC-1 is sufficiently supported for the purposes of 10 C.F.R. § 2.309(f)(1)(v) and (vi).

As SLOMFP points out, its contention is comparable to one that we found admissible in *McGuire/Catawba.*[86] There, we affirmed the board's decision with regard to the portion of the admitted contention in which the petitioner asserted that the applicant failed to consider the results of a particular study in its SAMA analysis.[87] The petitioner had focused on the conclusions of the study, highlighting a discrepancy in the conclusions reached by the applicant.[88] Thus, we found that the contention "raise[d] a question about whether information from the . . . study should have been utilized or otherwise addressed in [the] SAMA analysis."[89] Moreover, we rejected the applicant's arguments that were focused on the superiority of its analyses over those in the study — arguments that we found the board appropriately had left for the hearing on the merits.[90] We explained that "for an admissible contention the [p]etitioners did not have to prove outright that [the] SAMA analysis was deficient."[91] For reasons similar to those stated in *McGuire/Catawba,* and for the reasons provided by this Board in its thorough contention admissibility analysis, we find that SLOMFP has raised a genuine dispute as to whether information from the Shoreline Fault should be addressed in PG&E's SAMA analysis.[92] As the Board noted, it might be that a bounding deterministic analysis would be sufficient.[93] But for the purposes of contention admissibility, we do not consider the merits of SLOMFP's arguments.

However, the Board erred in its reformulation of Contention EC-1, to the extent that it would make 40 C.F.R. § 1502.22 binding on the NRC. We look to

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[86] *See* SLOMFP Answer to PG&E Appeal at 7; *McGuire/Catawba,* CLI-02-17, 56 NRC at 7.

[87] *McGuire/Catawba,* CLI-02-17, 56 NRC at 8.

[88] *Id.*

[89] *Id.*

[90] *Id.* at 9.

[91] *Id.*

[92] *See* LBP-10-15, 72 NRC at 287-92. Contrary to PG&E's suggestion, we do not read the Board's decision as requiring PG&E and the Staff to complete the ongoing Shoreline Fault studies before EC-1 may be resolved. *See* PG&E Appeal at 19. The Board expressly distinguished SLOMFP's assertion "that any examination [of the Shoreline Fault] would be insufficient until the results are available from . . . ongoing studies" as a matter that is not to be determined at this stage of the proceeding. LBP-10-15, 72 NRC at 291. Thus, we understand the Board's designation of EC-1 as a contention of omission as a means to limit its scope. The contention in *McGuire/Catawba* similarly was framed as a contention of omission, to distinguish between that petitioner's claim that the applicant's SAMA analysis should have discussed a particular study, and the petitioner's later claim that the discussion, once provided, was inadequate. *See 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). If SLOMFP intends to challenge the adequacy of any information that PG&E provides in a revision or supplement to its license renewal application regarding the Shoreline Fault, it must submit a new or amended contention. *See id.*

[93] *See* LBP-10-15, 72 NRC at 288.

CEQ regulations for guidance, including section 1502.22.[94] But our longstanding policy is that the NRC, as an independent regulatory agency, "is not bound by those portions of CEQ's NEPA regulations" that, like section 1502.22, "have a substantive impact on the way in which the Commission performs its regulatory functions."[95] Consistent with our ruling, we restate Contention EC-1 as follows:

> PG&E's Severe Accident Mitigation Alternatives [(SAMA)] analysis fails to consider information regarding the Shoreline fault that is necessary for an understanding of seismic risks to the Diablo Canyon nuclear power plant. As a result, 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).

C. Contention EC-2

As narrowed by the Board, Contention EC-2 states:

> 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 [Diablo Canyon].[96]

The Board admitted Contention EC-2 on a conditional basis, pending our ruling on the merits of SLOMFP's petition for waiver of NRC regulations that otherwise would preclude consideration of the contention in this adjudicatory proceeding.[97]

The NRC's regulatory review process for license renewal divides the environmental review into two parts: those issues deemed appropriate for generic analysis, and those warranting a site-specific environmental impact assessment. Issues found not to require a plant-specific environmental analysis are designated

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[94] *See Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 235-36 & n.115 (2007) (citing section 1502.22, noting that "[t]he CEQ has . . . recognized that information may be unavoidably incomplete or unavailable, and that under those circumstances, a [final environmental impact statement] can overcome this deficiency if it states that fact, explains how the missing information is relevant, sets forth the existing information, and evaluates the environmental impacts to the best of the agency's ability"). *See also Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-880, 26 NRC 449, 460-61 (1987).

[95] Final Rule: "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions and Related Conforming Amendments," 49 Fed. Reg. 9352, 9352 (Mar. 12, 1984). *See also* 10 C.F.R. § 51.10(a).

[96] LBP-10-15, 72 NRC at 360 (Attachment A).

[97] *Id.* at 345. *See also* 10 C.F.R. § 2.335(a).

"Category 1" issues.[98] For "Category 1" issues, the NRC's Generic Environmental Impact Statement (GEIS) for license renewal provides a generic environmental analysis — generally applicable either to all plants or to a distinct subcategory of plants. Because "Category 1" issues already have been reviewed on a generic basis, an applicant's Environmental Report need not provide a site-specific analysis of these issues.[99] As relevant here, the potential environmental impact of storing spent fuel in pools for an additional 20 years — including the risk of spent fuel pool accidents — has been addressed generically in the GEIS, and is designated as a "Category 1" issue. The Staff concluded that the environmental impacts of spent fuel storage will be small for all plants.[100] Consequently, Appendix B of Part 51, Subpart A, incorporates the GEIS conclusion that the impacts will be small, and section 51.53(c) provides that a license renewal applicant need not provide a site-specific analysis of the environmental impacts of spent fuel storage in its environmental report.

In its request for hearing, SLOMFP argued that PG&E must provide a site-specific analysis of the environmental impacts of spent fuel pool storage.[101] Recognizing that a site-specific analysis is not required by regulation, SLOMFP contemporaneously sought a waiver of 10 C.F.R. Part 51, Subpart A, Appendix B, and 10 C.F.R. § 51.53(c)(2).[102]

According to SLOMFP, the 2009 draft revision to the GEIS provides "new and significant" information that is relevant to the Diablo Canyon site.[103] SLOMFP

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[98] *See generally* NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Final Report, Vol. 1 (May 1996) at 1-5 to 1-11 (ADAMS Accession No. ML040690705). The GEIS conclusions on the environmental impacts of "Category 1" issues are codified in Table B-1, 10 C.F.R. Part 51, Appendix B to Subpart A.

[99] *See* 10 C.F.R. § 51.53(c)(3)(i). License renewal applicants must provide a plant-specific analysis of those issues designated as "Category 2" issues. *See* 10 C.F.R. § 51.53(c)(3)(ii).

[100] GEIS at 6-85 to 6-86.

[101] Request for Hearing at 19.

[102] *See id.*; Waiver Petition at 1-2. In briefing the waiver issue, the Staff posits that "[p]resumably SLOMFP meant to challenge 10 C.F.R. §§ 51.53(c)(3) and 51.95(c), which apply the findings in Table B-1 to the [Environmental Report] and [supplemental environmental impact statement], respectively," rather than 10 C.F.R. § 51.53(c)(2). NRC Staff's Brief in Opposition to Waiver of 10 C.F.R. §§ 51.53(c)(2) and 10 C.F.R. Part 51, Subpart A, Appendix B as to Contention EC-2 (Sept. 24, 2010) at 11 n.43 (errata filed Sept. 28, 2010) (NRC Staff Initial Brief). SLOMFP agrees, and in its reply brief before us, adds to its request 10 C.F.R. §§ 51.53(c)(3) and 51.95(c). *See* San Luis Obispo Mothers for Peace's Reply Brief Regarding the NRC's Duty to Waive 10 C.F.R. § 51.53(c)(2) and 10 C.F.R. Part 51 Subpart A, Appendix B (Oct. 15, 2010) at 2-3 n.1 (SLOMFP Reply Brief). For the reasons stated below, we deny the request for waiver to the extent it also would include sections 51.53(c)(3) and 51.95(c).

[103] *See* Request for Hearing at 19; Waiver Petition at 1. *See generally* NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Draft Report for Comment,

(Continued)

references the Draft Revised GEIS discussion of a 2001 technical study of the risk of spent fuel pool accidents at plants undergoing decommissioning.[104] This "Decommissioning Study" was completed after the issuance of the 1996 GEIS, and the Draft Revised GEIS references it as the "key document" with regard to the additional analyses of spent fuel pool accident risk that have been conducted since the GEIS was issued.[105] Describing the analysis in the Decommissioning Study, the Draft Revised GEIS notes that the study excluded Diablo Canyon (as well as two other plants) in its analysis of seismic initiating events for spent fuel pool accidents.[106] Although the Draft Revised GEIS ultimately concludes that "the environmental impacts stated in the 1996 GEIS bound the impact from [spent fuel pool] accidents"[107] — i.e., that the impacts of spent fuel storage are small — SLOMFP claims that this conclusion does not apply to Diablo Canyon because the seismic risk evaluation in the Decommissioning Study excludes Diablo Canyon.[108]

In performing the site-specific analysis that SLOMFP claims is required, SLOMFP argues that PG&E should consider in its Environmental Report "a complete analysis of the potential for a pool fire at Diablo Canyon[,] . . . [with] a full spectrum of potential causes, including seismic contributors."[109] In addition, SLOMFP argues that PG&E's Environmental Report should provide a complete analysis of the impacts of a spent fuel pool fire, as well as address alternatives for avoiding or mitigating those impacts.[110]

SLOMFP asserts that it meets the requirements for a waiver under 10 C.F.R. § 2.335(b) because: (1) the Draft Revised GEIS "contains significant new information demonstrating that [Diablo Canyon] has unique seismic characteristics that resulted in its exclusion" from the Decommissioning Study; (2) "the NRC relied on analyses and mitigation measures that are site-specific" for its generic conclusion that the environmental impacts of spent fuel storage are small; and (3)

Vols. 1 and 2, Rev. 1 (July 2009) (ADAMS Accession Nos. ML091770049, ML091770048) (Draft Revised GEIS). The Draft Revised GEIS has been issued for public comment. *See* Proposed Rule: "Revisions to Environmental Review for Renewal of Nuclear Power Plant Operating Licenses, 74 Fed. Reg. 38,117 (July 31, 2009); 74 Fed. Reg. 51,222 (Oct. 7, 2009) (extending comment period). SLOMFP submitted comments on the Draft Revised GEIS. Letter from San Luis Obispo Mothers for Peace, to Secretary, U.S. NRC (Jan. 12, 2010) (ADAMS Accession No. ML100150092) (SLOMFP Comments).

[104] *See* Request for Hearing at 16 (citing Draft Revised GEIS § E.3.7, at E-33 to E-34); NUREG-1738, "Technical Study of Spent Fuel Pool Accident Risk at Decommissioning Nuclear Power Plants" (Feb. 2001) (ADAMS Accession No. ML010430066) (Decommissioning Study).

[105] Draft Revised GEIS at E-33.

[106] *Id.* at E-33 n.(a).

[107] *Id.* at E-37.

[108] Request for Hearing at 17.

[109] *Id.* at 18.

[110] *Id.* at 19.

the NRC's generic analysis lacks adequate support "because it fails to provide references to support its conclusion or to show that it has fully complied with its obligations to disclose all publicly releasable information on which it relies."[111] Therefore, SLOMFP argues, the purpose of the regulations that preclude the litigation of a site-specific analysis of the environmental impacts of spent fuel pool storage would not be served.[112]

The Board concluded that SLOMFP made the requisite prima facie showing for waiver of the rules, such that the Board certified the matter to us for a determination whether, in the context of this proceeding, the application of the rules should be waived, or an exception made.[113] Applying the factors that we laid out in *Millstone* in 2005,[114] the Board concluded that: (1) SLOMFP has raised a material question as to whether, in light of current available knowledge, the generic treatment of spent fuel pool impacts should be strictly applied in this case; (2) SLOMFP has made at least a prima facie showing that special circumstances exist at Diablo Canyon that render the generic conclusions inapplicable to Diablo Canyon with regard to seismically induced spent fuel pool accidents; (3) the special circumstances that are the basis of the request are unique to Diablo Canyon; and (4) "EC-2 raises new and significant information that may constitute a 'significant' NEPA-related issue."[115] The Board went on to consider the admissibility of Contention EC-2, and found that EC-2 satisfied our contention admissibility criteria.[116]

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[111] Waiver Petition at 1-2. *See also* Curran Declaration ¶¶ 5, 7, 10, 12.

[112] Waiver Petition at 1. In her declaration, Ms. Curran also asserts that: (1) the Draft Revised 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 [Diablo Canyon]"; (2) Diablo Canyon's exclusion from the Decommissioning Study is consistent with the conclusion in PG&E's SAMA analysis that seismic risk contributors are disproportionately dominant when compared to all external events; (3) "the economic consequences of a pool fire could be particularly high for California . . ."; and (4) the NRC Staff does not indicate in the Draft Revised GEIS that it considered seismic issues. *See* Curran Declaration ¶¶ 5-8, 10.

[113] LBP-10-15, 72 NRC at 302; 10 C.F.R. § 2.335(d). The Board, on its own initiative, included the waiver of 10 C.F.R. § 51.23 in its certification. LBP-10-15, 72 NRC at 302 n.50. As in other contexts, we discourage licensing boards from adding material to bolster a petitioner's or party's arguments or pleadings. *See, e.g., Palo Verde,* CLI-91-12, 34 NRC at 155-56 (contention admissibility); *Louisiana Power and Light Co.* (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1, 4-5 (1986) (motion to reopen); *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-915, 29 NRC 427, 432 (1989) (motion to reopen). *See also infra* note 133.

[114] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005).

[115] LBP-10-15, 72 NRC at 303-06.

[116] *Id.* at 306-11. On appeal, PG&E argues that the Board erred in admitting EC-2 because the contention fails to meet the requirements of 10 C.F.R. § 2.309(f)(1), and, in any event, the Board committed procedural error by not awaiting our ruling on the merits of the waiver petition before *(Continued)*

Upon receipt of the Board's decision, the Secretary of the Commission invited the parties to brief the waiver issue.[117] PG&E, SLOMFP, and the Staff timely filed initial and responsive briefs.[118]

Section 2.335(b) provides an exception to the general rule that our regulations are not subject to challenge in adjudicatory proceedings. In accordance with this section, a party to an adjudicatory proceeding may petition for a waiver of "a specified Commission rule or regulation or any provision thereof."[119] "The sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation (or a provision of it) would not serve the purposes for which [it] was adopted."[120] In order to meet this standard, the party seeking a waiver must attach an affidavit that, among other things, "state[s] with particularity the special circumstances [claimed] to justify the waiver or exception requested."[121] Upon consideration of the filings before the Board and before us, we find that SLOMFP's waiver petition and attached declaration lack the requisite detail and support to justify a waiver in this proceeding, and therefore decline to grant the waiver. SLOMFP's general claims that new information in the Decommissioning Study "undermines" the 1996 GEIS go to the heart of the

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ruling on the contention's admissibility. PG&E Appeal at 21-27 & n.16. PG&E references language in section 2.335(d) that the presiding officer "shall, before ruling on the petition, certify the matter directly to the Commission," to support its argument that the Board incorrectly ruled on the admissibility of EC-2 in conjunction with the waiver petition. *Id.* at 21 n.16. The Staff agrees with PG&E. *See* NRC Staff Answer to PG&E Appeal at 9-10 & n.46. In our view, however, the plain language of the provision as a whole supports an interpretation that the use of the term "petition" in this section refers to the waiver petition, not a petition to intervene, as PG&E would have it. *See generally* 10 C.F.R. § 2.335. *Cf.* 10 C.F.R. § 2.758(d) (2004) (stating, in a prior version of the rule, that "[i]f on the basis of the petition, affidavit and any response provided for in paragraph (b) of this section, the presiding officer determines that such a prima facie showing has been made, the presiding officer shall, *before ruling thereon,* certify the matter directly to the Commission") (emphasis added). We find no clear procedural error in the Board's ruling on the admissibility of Contention EC-2 in conjunction with its certification of the waiver matter.

[117] Order (Aug. 31, 2010) (unpublished). *See* 10 C.F.R. § 2.335(d) (permitting the Commission to "direct further proceedings as it considers appropriate to aid its determination").

[118] Applicant's Brief in Opposition to a Waiver for Contention EC-2 (Sept. 24, 2010) (PG&E Initial Brief); NRC Staff Initial Brief; San Luis Obispo Mothers for Peace's Brief Regarding the NRC's Duty to Waive 10 C.F.R. § 51.53(c)(2) and 10 C.F.R. Part 51 Subpart A, Appendix B, in Order to Allow Consideration of Environmental Impacts of Earthquakes on Spent Fuel Pool Storage at the Diablo Canyon Nuclear Power Plant (Sept. 24, 2010) (errata filed Sept. 27, 2010) (SLOMFP Initial Brief); Applicant's Reply Brief in Opposition to a Waiver for Contention EC-2 (Oct. 15, 2010); NRC Staff's Reply Brief in Opposition to Waiver of 10 C.F.R. § 51.53(c)(2) and 10 C.F.R. Part 51, Subpart A, Appendix B as to Contention EC-2 (Oct. 15, 2010); SLOMFP Reply Brief.

[119] 10 C.F.R. § 2.335(b).

[120] *Id.*

[121] *Id.*

rulemaking to update the GEIS, and will be considered by the Commission in that process.

In order to waive the generic assessment in our regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in this license renewal proceeding, we must conclude that (i) the rule's strict application would not serve the purpose for which it was adopted; (ii) SLOMFP has asserted "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 rule is necessary to reach a "significant" safety problem.[122] Our analysis begins and ends with the first factor. We find that SLOMFP's waiver petition does not demonstrate that "strict application [of the rule] 'would not serve the purposes for which [it] was adopted.'"[123]

The Board states that the purpose of 10 C.F.R. Part 51 Subpart A, 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 [license renewal a]pplicant and NRC to dispense with site-specific evaluations of such environmental impacts in situations covered by the generic analysis.[124]

We agree.[125] But SLOMFP has failed to show that the generic finding in the 1996 GEIS regarding the environmental impacts of spent fuel pool storage, which is

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[122] *Millstone,* CLI-05-24, 62 NRC at 559-60 (and cases cited therein). The Board expressed concern with respect to the *Millstone* case, particularly whether the fourth factor, in which we required a showing of a significant *safety* problem in order to permit a waiver, could be applied in a case involving waiver of a NEPA regulation. *See* LBP-10-15, 72 NRC at 299, 301. (The *Millstone* case pertained to a waiver petition associated with 10 C.F.R. § 50.47, relevant to emergency planning — a safety issue, as opposed to one arising under NEPA.) Given that our decision turns on the first factor, we need not reach this issue today.

[123] *Millstone,* CLI-05-24, 62 NRC at 559-60 (quoting 10 C.F.R. § 2.335(b)) (second alteration in original). *See also* 10 C.F.R. § 2.335(b) ("The petition 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 (or provision of it) would not serve the purposes for which [it] was adopted.").

[124] LBP-10-15, 72 NRC at 303.

[125] *See* Final Rule: "Environmental Review for Renewal of Nuclear Power Plant Operating Licenses," 61 Fed. Reg. 66,537, 66,538 (Dec. 18, 1996); Final Rule: "Environmental Review for Renewal of Nuclear Power Plant Operating License," 61 Fed. Reg. 28,467, 28,467 (June 5, 1996); GEIS at 1-1.

incorporated into 10 C.F.R. Part 51, should not apply to Diablo Canyon in this proceeding.

To support its waiver petition, SLOMFP relies on the Decommissioning Study, which excludes Diablo Canyon from its seismic risk assessment.[126] But when read in context, the Decommissioning Study does not suggest that there is anything specific about Diablo Canyon such that the generic conclusion in the 1996 GEIS regarding the environmental impacts of spent fuel pool storage does not apply.[127] The Decommissioning Study excludes Diablo Canyon from the seismic risk analysis because the Staff's sources for seismic hazard estimates — studies from the Electric Power Research Institute and Lawrence Livermore National Laboratory — focused on seismic risk in the central and eastern United States, and thus did not include seismic hazard estimates for plants west of the Rocky Mountains.[128] The Staff's use of seismic hazard estimates for the central and eastern United States in the Decommissioning Study simply means that PG&E will be required to provide a site-specific seismic analysis for Diablo Canyon if PG&E wishes to seek an exemption from certain decommissioning requirements *at the time the plant undergoes decommissioning.*[129] As the Staff and PG&E point out, the Decommissioning Study, viewed in the light most favorable to SLOMFP, is neutral with respect to the conclusions in the 1996 GEIS.[130] Therefore, the Decommissioning Study does not support SLOMFP's argument that PG&E should perform a site-specific analysis of the environmental impacts of spent fuel pool storage at Diablo Canyon.

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[126] In considering the waiver petition and the admissibility of Contention EC-2, the Board relies on the assumption that both the Decommissioning Study and the Draft Revised GEIS exclude Diablo Canyon. *See, e.g.,* LBP-10-15, 72 NRC at 304 ("Each of these analyses [(the Decommissioning Study and the Draft Revised GEIS)] 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 [Diablo Canyon]"); *id.* at 305 (describing the "blunt exclusions of the 2009 Draft GEIS and [the Decommissioning Study]"). However, the Board is mistaken. It is only the Decommissioning Study that excludes Diablo Canyon from a particular aspect of its analysis; the Draft Revised GEIS merely notes this fact.

[127] Moreover, the Draft Revised GEIS reaffirms the conclusion of the 1996 GEIS, and relies on a number of studies and observations, including — but not limited to — the Decommissioning Study, to reach that conclusion. *See* Draft Revised GEIS at E-37. The rulemaking to update the GEIS currently is under way. The conclusions in the Draft Revised GEIS, therefore, are not yet final. However, the draft revision reflects that the Staff's analysis of the issue extends to multiple sources — well beyond consideration of only the 2001 Decommissioning Study.

[128] Decommissioning Study at A2B-2 (noting that the Staff used seismic hazard estimates that did not include plants west of the Rocky Mountains such as San Onofre, Diablo Canyon, and WNP2 (now Columbia Generating Station)).

[129] *Id.* at A2B-2 to A2B-5.

[130] *See* NRC Staff Initial Brief at 22-23; PG&E Initial Brief at 24.

SLOMFP's remaining claims likewise fail. SLOMFP's statement that the Staff did not consider in the Draft Revised GEIS the environmental impacts of a seismically generated event is misdirected. The 1996 GEIS is the operative document here,[131] and it includes a seismic assessment.[132] SLOMFP does not challenge this assessment, or provide support for the proposition that this conclusion would not apply at Diablo Canyon.[133] Moreover, although SLOMFP cites PG&E's statement in its SAMA analysis that seismic initiating events are disproportionately dominant when compared to other external events, SLOMFP does not indicate how this supports its claim that the spent fuel pool analysis in the 1996 GEIS is insufficient with respect to Diablo Canyon.[134] And SLOMFP's claim that economic consequences from land contamination would be especially high in California lacks an explanation of how this fact, assuming it is true, undermines the conclusions in the GEIS.[135]

And finally, we find no merit to SLOMFP's claim that the GEIS conclusion cannot be applied generically because it was developed using site-specific information. It is within our discretion to resolve issues generically by rulemaking,[136] and it is sound regulatory practice to base the generic conclusion on experience with, and commonalities across, a number of plants. SLOMFP offers no support for its claim that the use of site-specific information undermines the generic conclusion regarding the environmental impacts of spent fuel pool storage.[137]

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[131] Revisions to the GEIS are pending, as the matter is the subject of an ongoing rulemaking proceeding. *See supra* note 103. The proper forum for SLOMFP to raise issues associated with the proposed revised GEIS is in our rulemaking process, not this adjudication. Similarly, SLOMFP's claim that the NRC has failed to reference information supporting the GEIS finding is a matter that is appropriately raised in the rulemaking process, where the adequacy of the GEIS is under consideration. *See* Curran Declaration ¶ 12; SLOMFP Initial Brief at 17-18. Our conclusions with regard to the waiver petition are specific to this license renewal proceeding, and are separate from our consideration of revisions to the GEIS.

[132] GEIS at 6-72, 6-75.

[133] In finding that SLOMFP had established a prima facie case for waiver, the Board opined that "[t]he existence of special seismic circumstances unique to [Diablo Canyon], and not considered in the [1996 or Draft Revised GEIS, or the Decommissioning Study], is underscored by the recent discovery of the Shoreline Fault that is the subject of Contention EC-1." LBP-10-15, 72 NRC at 305 (noting that in response to questioning at oral argument the Staff acknowledged that "the Shoreline fault is not considered in either the 1996 GEIS or the 2009 Draft GEIS"). But SLOMFP did not raise this argument in its request for hearing or waiver petition. *See generally* Request for Hearing; Waiver Petition. A licensing board may not add support where it is lacking. *See Palo Verde,* CLI-91-12, 34 NRC at 155-56. In any event, whether the 1996 GEIS considered the Shoreline Fault does not, without more, suggest a deficiency in the GEIS generic finding as applied to Diablo Canyon.

[134] *See* Curran Declaration ¶ 7.

[135] *See id.* ¶ 8.

[136] *See Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.,* 462 U.S. 87, 101 (1983).

[137] *See* Waiver Request at 2; Curran Declaration ¶ 5.

Each of the four "*Millstone* factors" must be met in order for a waiver to be granted.[138] Therefore, SLOMFP's waiver petition, having failed to meet the "first *Millstone* factor," is denied. In the absence of a waiver, Contention EC-2 is outside the scope of the proceeding.[139]

In declining SLOMFP's waiver request, and in declining to permit litigation of Contention EC-2 in this license renewal proceeding, we remain mindful of the recent nuclear events in Japan. On March 11, 2011, Japan was struck by an earthquake and tsunami that caused damage at the Fukushima Daiichi Nuclear Power Station. In response to this tragic event, we have begun to take actions to verify the safety of nuclear facilities in the United States. We continue to monitor the situation in Japan and are prepared to make any adjustments to safety measures for NRC-licensed activities as may be deemed appropriate. We instructed the Staff to create a Task Force to review our processes and regulations to determine whether the agency should make additional improvements to our regulatory system and make recommendations to us for our policy direction. In the short term, the Task Force was directed to:

> evaluate currently available technical and operational information from the events [that have occurred at the Fukushima Daiichi nuclear complex] in Japan to identify [potential or preliminary] near term/immediate operational or regulatory issues affecting domestic operating reactors of all designs, in areas such as protection against earthquake, tsunami, flooding, hurricanes; station blackout and a degraded ability to restore power; severe accident mitigation; emergency preparedness; and combustible gas control.[140]

The Task Force completed its near-term effort and issued its report on July 12,

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[138] *See* text accompanying note 122; *Millstone,* CLI-05-24, 62 NRC at 560 ("The use of 'and' in this list of requirements is both intentional and significant. For a waiver request to be granted, *all four* factors must be met." (emphasis in original)).

[139] *See* 10 C.F.R. §§ 2.309(f)(1)(iii), 2.335(a). We therefore need not address the Board's ruling on the admissibility of Contention EC-2. Setting aside the question of scope, however, it appears that the contention shares the same deficiency as the waiver request — a lack of adequate support to demonstrate the existence of a genuine dispute on a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(v), (vi). SLOMFP simply offers bare assertions in claiming that PG&E's incorporation of the GEIS finding fails to satisfy NEPA. Bare assertions are insufficient to support a contention. *See Crow Butte,* CLI-09-12, 69 NRC at 562, 573.

[140] SRM-COMGBJ-11-02 (Mar. 21, 2011) at 1 (ADAMS Accession No. ML110800456). *See generally* "Charter for the Nuclear Regulatory Commission Task Force to Conduct a Near-Term Evaluation of the Need for Agency Actions Following the Events in Japan" (Mar. 30, 2011) (ADAMS Accession No. ML11089A045) (Task Force Charter). We also directed the Task Force to "[d]evelop recommendations, as appropriate, for potential changes to NRC's regulatory requirements, programs, and processes, and recommend whether generic communications, orders, or other regulatory actions are needed." Task Force Charter at 1.

2011, for our consideration.[141] We directed a number of actions in response to the Near-Term Report, including review and assessment, with stakeholder input, of the Task Force recommendations; provision of a draft charter for assessing the Task Force recommendations and conducting the agency's longer-term review; preparation of a notation vote paper that identifies recommended short-term actions; preparation of a notation vote paper that sets recommended priorities for the Task Force recommendations; and formal review of the Task Force recommendations by the Advisory Committee on Reactor Safeguards.[142] NRC will develop lessons learned, as it has in the past — that is, the NRC will "evaluate all technical and policy issues related to the event to identify potential research, generic issues, changes to the reactor oversight process, rulemakings, and adjustments to the regulatory framework that should be conducted by NRC."[143] Accordingly, our comprehensive evaluation includes consideration of those facilities that may be subject to seismic activity or tsunamis, such as Diablo Canyon. Further, that evaluation will include consideration of lessons learned that may apply to spent fuel pools that are part of the U.S. nuclear fleet.

D. Contention EC-4

As originally proposed by SLOMFP, Contention EC-4 states:

> The Environmental Report fails to satisfy [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.[144]

The Board admitted Contention EC-4 as proposed.[145]

PG&E's Environmental Report incorporates the conclusion in the GEIS that the resultant core damage and radiological releases from a terrorist attack "would

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[141] *See* "Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident" (July 12, 2011) (Near-Term Report) (transmitted to the Commission via SECY-11-0093, "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan" (July 12, 2011) (ADAMS Accession No. ML11186A950 (package)).

[142] *See* "Near-Term Report and Recommendations for Agency Actions Following the Events in Japan," Staff Requirements Memorandum SECY-11-0093 (Aug. 19, 2011) (ADAMS Accession No. ML112310021).

[143] SRM-COMGBJ-11-02, at 2.

[144] Request for Hearing at 22.

[145] *See* LBP-10-15, 72 NRC at 360 (Attachment A).

be no worse than those expected from internally initiated events."[146] SLOMFP asserted that PG&E's Environmental Report does not satisfy NEPA and 10 C.F.R. § 51.53(c)(3)(ii)(L) because the SAMA analysis does not discuss "the relative costs and benefits of measures to avoid or mitigate the effects of an attack."[147] According to SLOMFP, it is insufficient for PG&E to rely on an analysis that considers mitigative measures for accidents, because the particular measures taken to mitigate accidents might differ from mitigative measures for attacks.[148] SLOMFP argued that the contention is within the scope of the proceeding because:

> (a) the Ninth Circuit's decision in *San Luis Obispo Mothers for Peace*[149] established that the impacts of attacks on the Diablo Canyon reactor are cognizable under NEPA, (b) an evaluation of mitigation measures is required by NEPA and NRC regulations, and (c) an evaluation of measures to mitigate attacks on nuclear reactors cannot be found in the License Renewal GEIS.[150]

The Board characterized Contention EC-4 as an admissible contention of omission that challenges "the absence of consideration of terrorist-originated core-damaging events [in PG&E's] SAMA analysis."[151] According to the Board, the omitted information includes an analysis of the impact of terrorist attacks (as an initiating event) on the core damage frequency, and cost-benefit analyses regarding measures to mitigate or avoid the consequences of a terrorist attack.[152] In admitting the contention, the Board found that contrary to PG&E's and the Staff's arguments, the Ninth Circuit's decision in *Mothers for Peace* applies to the analysis of Contention EC-4.[153]

The Board then noted the difficulty of conducting the SAMA analysis without quantitative information on terrorist attacks. The Board hypothesized that qualitative, rather than quantitative, information is likely to be the only type of

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[146] Environmental Report at 5-5, F-83 (quoting GEIS at 5-18). The GEIS states: "The regulatory requirements under 10 CFR part 73 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 commission concludes that the risk from sabotage and beyond design basis earthquakes at existing nuclear power plants is small and additionally, that the risks [from] other external events, are adequately addressed by a generic consideration of internally initiated severe accidents." GEIS at 5-18.

[147] Request for Hearing at 23.

[148] *See id.*

[149] *San Luis Obispo Mothers for Peace v. NRC,* 449 F.3d 1016 (9th Cir. 2006).

[150] Request for Hearing at 23.

[151] LBP-10-15, 72 NRC at 321.

[152] *Id.* at 322-23.

[153] *Id.* at 321 & n.73.

information available.[154] In addition, the Board noted that much of the information on mitigative measures for the consequences of terrorist attacks is likely not to be available to the public, and possibly not accessible by members of the Staff who would conduct the SAMA analysis.[155] Based on these concerns, the Board referred its ruling to us pursuant to 10 C.F.R. § 2.323(f)(1), suggesting that Contention EC-4 raises novel or legal policy issues that would benefit from our review.[156]

On appeal, PG&E argues that the Board's admission of Contention EC-4 is directly contrary to our decision in the *Oyster Creek* license renewal case,[157] as affirmed by the Third Circuit.[158] PG&E states that it relied on the GEIS conclusions in its Environmental Report based on this precedent, and therefore is not required to address the issue further in its application.[159] Alternatively, PG&E argues that Contention EC-4 fails for lack of support. Regarding the impact of a terrorist-initiated event on the core damage frequency, PG&E asserts that SLOMFP offers no support to challenge the conclusion in the GEIS that the impact would be different from that of an internally initiated event.[160] Regarding the need for the SAMA analysis to consider measures to avoid or mitigate the effects of an attack, PG&E asserts that SLOMFP "has provided no expert opinion or factual information to support site-specific arguments or to call into question the costs or benefits of any (unexplained) mitigation measures beyond those already considered."[161]

We find that the Board erred in admitting Contention EC-4. As an initial matter, in *Oyster Creek,* a majority of the Commission held, among other things, that NEPA does not require the NRC to consider the environmental consequences

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[154] *Id.* at 324.

[155] *Id.* at 323-24.

[156] *Id.* at 325. The Board outlined three questions for us to address in conjunction with the referral: "(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." *Id.* Given that we consider the Board's referred contention admissibility ruling as part of PG&E's appeal, as a practical matter, we undertake review of the ruling pursuant to 10 C.F.R. § 2.341(f)(1). Because we find the contention inadmissible, however, we need not reach the questions posed by the Board.

[157] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-07-8, 65 NRC 124 (2007), *aff'd, New Jersey Department of Environmental Protection v. NRC,* 561 F.3d 132 (3d Cir. 2009).

[158] PG&E Appeal at 28-30 (citing our decision in *Oyster Creek,* and stating that "[t]he Commission's approach to terrorism in a license renewal application is clear: applicants should rely on the GEIS").

[159] *Id.* at 30 n.22.

[160] *Id.* at 29 & n.21.

[161] *Id.* at 30.

of hypothetical terrorist attacks on NRC-licensed facilities.[162] However, given that Diablo Canyon falls within the geographic boundary of the Ninth Circuit, on this issue we are bound by the Ninth Circuit's decision in *Mothers for Peace,* holding that the NRC may not exclude NEPA terrorism contentions categorically.[163] Even so, the *Mothers for Peace* decision does not dictate the result of this license renewal proceeding, which is governed by a different regulatory scheme than the dry cask storage proceeding that underlay the *Mothers for Peace* decision.

The GEIS specifically includes a discretionary analysis of the environmental impacts of a terrorist attack. In *Oyster Creek,* we held, as an alternative ground for excluding a "NEPA terrorism" contention, that the Staff's determination in the GEIS that the environmental impacts of a terrorist attack were bounded by those resulting from internally initiated events, was sufficient to address the environmental impacts of terrorism.[164] To the extent that SLOMFP challenges that generic assessment, its remedy is a petition for rulemaking to modify our rules, or a petition for a waiver of the rules based on "special circumstances."[165]

To the extent that SLOMFP here raises the issue of mitigating the environmental impacts of terrorist attacks in the context of the *site-specific* SAMA analysis, it has failed to support its claim. PG&E's Environmental Report discusses mitigation measures for terrorist attacks in the SAMA analysis. Significant here, PG&E explains that in complying with NRC security orders that were issued after the attacks on September 11, 2001, it has "implemented mitigation measures to generally deal with the situation in which large areas of the plant were lost due to fires and explosions, whatever the beyond-design basis initiator and without regard to cost."[166] Therefore, for the purposes of evaluating these issues in the environmental context, the Environmental Report states that "even though the intentional aircraft attacks and sabotage-related events are outside the scope of the SAMA analysis, the site has already taken steps to mitigate severe accidents

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[162] *Oyster Creek,* CLI-07-8, 65 NRC at 129. Chairman Jaczko dissented on this point. *See id.* at 135-37.

[163] *See Diablo Canyon,* CLI-08-1, 67 NRC at 4-5; *Oyster Creek,* CLI-07-8, 65 NRC at 128; *System Energy Resources, Inc.* (Early Site Permit for Grand Gulf ESP Site), CLI-07-10, 65 NRC 144, 146 (2007).

[164] *Oyster Creek,* CLI-07-8, 65 NRC at 131-32.

[165] *See* 10 C.F.R. §§ 2.335, 2.802. Among its comments on the Draft Revised GEIS, SLOMFP asserts that the environmental impacts of a terrorist attack should be considered. SLOMFP Comments at 9.

[166] Environmental Report at F-83.

that might result from such initiators."[167] SLOMFP neither acknowledges this discussion, nor challenges its sufficiency.[168]

Rather, SLOMFP asserts that the GEIS is inadequate to satisfy NEPA because it does not include an evaluation of measures to mitigate attacks, while disregarding the contents of PG&E's application beyond the Environmental Report's reference to the GEIS conclusion regarding terrorist attack consequences.[169] As stated above, the appropriate challenge to the adequacy of the GEIS is in the context of rulemaking, not this adjudication. SLOMFP directs the focus away from where it should be placed — on the applicant's Environmental Report.[170] SLOMFP is mistaken that a discussion of mitigation measures is absent from the Environmental Report, and thus fails to raise a genuine dispute.[171]

Even assuming that SLOMFP intended to challenge the discussion of mitigation measures in PG&E's Environmental Report, SLOMFP's unsupported statement that "[j]ust as mitigative measures are specific to the types of severe accidents to which a particular reactor design and site are vulnerable, they are also specific to the types of attacks to which the particular reactor design and site are vulnerable," falls short of the information required to show the existence of a genuine dispute.[172] It is not obvious how SAMAs considered for internally initiated events would differ if the initiating event were an attack, nor is it evident how the reliance on mitigating measures implemented in response to our security requirements would be insufficient to inform the Staff's environmental review.[173] It is SLOMFP's responsibility, as the petitioner, to put others on notice as to the issues it seeks to litigate in the proceeding. We should not have to guess the aspects of the SAMA analysis that SLOMFP is challenging.[174]

Since the events of September 11, 2001, the NRC has undertaken a significant number of security-related actions — including, but not limited to, major rulemakings — to address terrorism threats (and their mitigation) at both active

[167] *Id.*

[168] *See generally* Request for Hearing at 22-24. Although SLOMFP cites the page in the Environmental Report on which this discussion appears, it is used only as an additional page reference for the GEIS consequences conclusion. *See id.* at 22-23.

[169] *See id.* at 23.

[170] *See* 10 C.F.R. § 2.309(f)(1)(vi), (f)(2).

[171] *See id.* § 2.309(f)(1)(vi).

[172] Request for Hearing at 23.

[173] We recognize that measures implemented in response to our security requirements likely will involve nonpublic information. It does not appear from the record that SLOMFP has sought access to that information in this proceeding.

[174] *See, e.g., Crow Butte,* CLI-09-12, 69 NRC at 552-53; *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999).

and inactive nuclear facilities.[175] Our review efforts are ongoing, cumulative, and forward-looking. The NRC's security program addresses not only current operations, but also extends into the license renewal term.[176] And, as we have explained, both the GEIS for license renewal and PG&E's environmental report address the environmental impacts of terrorism. In addition, the Staff has advised us that the supplemental environmental impact statement (SEIS) associated with the Diablo Canyon license renewal application "will contain a site-specific analysis of the effects of terrorism."[177] In the face of all of this, SLOMFP has not offered a well-supported contention raising specific NEPA questions that NRC (or PG&E) has overlooked and that call for a hearing. In short, as discussed above, we conclude that the Board erred in admitting Contention EC-4.

On April 14, 2011, SLOMFP filed in this proceeding a petition requesting, among other things, that we suspend "all decisions" regarding the issuance of license renewals, pending completion of several actions associated with the recent nuclear events in Japan.[178] This was one of a series of substantively identical petitions filed in multiple dockets. We granted the requests for relief in part, and denied them in part.[179] In particular, we declined to suspend this or any other adjudication, or any final licensing decisions, finding no imminent risk to public health and safety, or to common defense and security. The agency continues to evaluate the implications of the events in Japan for U.S. facilities, as well as to consider actions that may be taken as a result of lessons learned in light of those events. Particularly with regard to license renewal, we stated that "[t]he NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its 'current licensing basis,' which can be adjusted

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[175] *E.g.,* Final Rule: "Design Basis Threat," 72 Fed. Reg. 12,705 (Mar. 19, 2007); Final Rule: "Power Reactor Security Requirements," 74 Fed. Reg. 13,926 (Mar. 27, 2009). SLOMFP took the opportunity to comment on the proposed design basis threat rule. *See generally* Comments by San Luis Obispo Mothers for Peace on NRC Proposed Rule Regarding Design Basis Threat for Protection of Nuclear Facilities Against Sabotage and Threat of Strategic Special Nuclear Material (Jan. 23, 2006) (ADAMS Accession No. ML060610344). *See also, e.g.,* Final Rule: "Consideration of Aircraft Impacts for New Nuclear Power Reactors," 74 Fed. Reg. 28,112 (June 12, 2009).

[176] *Oyster Creek,* CLI-07-8, 65 NRC at 130 n.28.

[177] NRC Staff Answer to PG&E Appeal at 17 n.87. The Staff currently expects to finalize its safety and environmental reviews, "to include issuance of the final [SEIS] and any necessary supplements to the [SER] or SEIS, between February 2014 and May 2014." Letter from Lloyd B. Subin, counsel for the NRC Staff, to the Administrative Judges (Sept. 15, 2011).

[178] *See generally* Emergency Petition to Suspend All Pending Reactor Licensing Decisions and Related Rulemaking Decisions Pending Investigation of Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Apr. 14, 2011, corrected Apr. 18, 2011); Declaration of Dr. Arjun Makhijani in Support of Emergency Petition to Suspend All Pending Reactor Licensing Decisions and Related Rulemaking Decisions Pending Investigation of Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Apr. 19, 2011).

[179] *See generally* CLI-11-5, 74 NRC 141 (2011).

by future Commission order or by modification to the facility's operating license outside the renewal proceeding (perhaps even in parallel with the ongoing license renewal review)."[180]

III. CONCLUSION

For the reasons set forth above, we *affirm in part,* and *reverse in part,* the Board's decision in LBP-10-15. We *deny* the waiver petition.

IT IS SO ORDERED.

For the Commission

ANDREW L. BATES
Acting Secretary of the Commission

Dated at Rockville, Maryland,
this 12th day of October 2011.

[180] *Id.* at 164.

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. 40-7102-MLA**
(License Amendment Request)

SHIELDALLOY METALLURGICAL CORPORATION
(Decommissioning of the Newfield, New Jersey Site) **October 12, 2011**

AGREEMENT STATES: SECTION 274 OF THE AEA

The pertinent statutory provisions on the scope of our authority in entering section 274 agreements are contained in sections 274b and 274d of the AEA, 42 U.S.C. §§ 2021(b), 2021(d). We construe subsection d as providing the specific conditions under which the Commission "shall" exercise the general legal authority granted to it under subsection b.

AGREEMENT STATES: SECTION 274 OF THE AEA

Given the mandatory language used in subsection d of section 274 of the AEA, we construe it as requiring us to enter into an agreement for state regulation of the particular categories of nuclear materials that a state certifies it both desires to regulate and has established a program for — provided that we find the state's program for regulation of such materials to be adequate and compatible.

AGREEMENT STATES: SECTION 274 OF THE AEA

We find nothing in this legislative history or in the statute itself to suggest that we may, over the objections of a state desiring jurisdiction and for reasons other than health and safety or compatibility, retain regulatory authority over pending applications involving a nuclear materials category otherwise transferred to a state.

AGREEMENT-STATE PROGRAMS: ADEQUACY AND COMPATIBILITY

We do not construe Criterion 25 as in any way relating to substantive standards or the regulatory outcome of a pending license application, even where as in Shieldalloy's case a license application has been pending at the NRC for an extended period. The purpose of that criterion is to ensure that licensing records are transferred to and received by the new agreement state in an orderly manner that ensures that no pending licensing actions will be significantly delayed or that no records will be lost or misplaced as a result of the transition of authority.

AGREEMENT-STATE PROGRAMS: ADEQUACY AND COMPATIBILITY

In entering into an agreement with any state, we fully anticipate and expect that the state's regulatory approaches and decisions may differ from ours. We have long recognized that agreement states should be provided with flexibility in program implementation to accommodate individual state preferences, state legislative direction, and local needs and conditions, including the flexibility to incorporate more stringent, or similar, requirements.

LICENSE TERMINATION: RESTRICTED VERSUS UNRESTRICTED RELEASE

Our regulations neither explicitly nor implicitly require a comparison of the levels of protection afforded by the unrestricted and restricted decommissioning options. This is because the levels of protection of unrestricted release and restricted release are simply not susceptible to being compared meaningfully. Each option uses significantly different methods to achieve adequate protection and has significantly different risks and uncertainties associated with it. Restricted-release dose estimates inherently involve much greater uncertainty than those from unrestricted release.

LICENSE TERMINATION: RESTRICTED VERSUS UNRESTRICTED RELEASE

Our license termination rule provides that unrestricted release and restricted release are both available as independent regulatory options that would provide adequate protection to the public health and safety *if* the applicable dose and other criteria are met. Nothing in our license termination regulations states or implies in any way that restricted-release decommissioning, under any circumstances, is a safer, more protective, or more desirable disposal option than unrestricted release. To the contrary, in view of the inherent complexities and uncertainties associated with restricted release, we explicitly expressed a preference for unrestricted release in adopting our license termination rule.

LICENSE TERMINATION: ALARA PRINCIPLE

Our ALARA principle itself, either as a general regulatory principle or as used in our license termination rule, does not incorporate or call for any comparative analysis of doses from restricted and unrestricted release. Under our license termination regulations, the ALARA principle has been implemented for two purposes. The first purpose is traditional — to reduce doses from license termination below the applicable dose criteria to the extent reasonably achievable. This stems from our policy that small doses of radiation below dose limits, while safe and acceptable, may have some associated risk and should be reduced below limits when reasonable. The ALARA principle has also been incorporated into the restricted-use portion of the license termination rule for the purpose of providing a criterion to limit the use of restricted release — effectively, to screen out sites that should be removing contamination to achieve unrestricted use. This purpose is achieved in section 20.1403(a) through the use of a cost-benefit analysis as a regulatory tool to determine initial "eligibility" for restricted release. The eligibility criterion in section 20.1403(a) was intended to support our preference for the unrestricted-release decommissioning option.

AGREEMENT-STATE PROGRAMS: ADEQUACY AND COMPATIBILITY

New Jersey's license termination regulations are not less protective than or incompatible with ours in making the terms of restricted release considerably more difficult than those for unrestricted release. Our regulations likewise heavily favor unrestricted over restricted release. If Shieldalloy has a more difficult time pursuing restricted release in New Jersey than under our regulations, then that is the function of New Jersey's permissibly more stringent regulatory scheme.

AGREEMENT-STATE PROGRAMS: ADEQUACY AND COMPATIBILITY

We decided the compatibility issue in the license termination rulemaking, when we found, through our Level C designation, that states are free to impose more stringent requirements than ours. The New Jersey variances cited by Shieldalloy are aspects of the state's regulations that are more stringent than ours on the same technical subject areas.

AGREEMENT-STATE PROGRAMS: ADEQUACY AND COMPATIBILITY

We do not see anything unfair or unlawful in state regulations that may apply to just one licensee in a state at any given time. An agreement state must have a regulatory program in place for *all* of the nuclear material categories and activities that a state wishes to regulate, currently and potentially.

AGREEMENT-STATE PROGRAMS: ADEQUACY AND COMPATIBILITY

We do not view a state's regulations as inherently unfair because they may be designed to effectuate a state-desired regulatory outcome. It is the prerogative of a state under the section 274 agreement-state program to decide what local interests, preferences, and needs it wishes to accommodate. Our role under section 274 is to assess whether a state's program adequately protects the public health and safety and whether it is compatible with ours.

AGREEMENT-STATE PROGRAMS: ADEQUACY AND COMPATIBILITY

If a regulated entity believes that a state's program, as implemented, is unlawful or contrary to public health and safety, it may raise its agreement-state performance concerns with us. NRC will address agreement-state performance concerns through our Integrated Materials Performance Evaluation Program (IMPEP) process or through an independent agreement-state performance concern evaluation, depending on the performance concern raised. We retain power under AEA § 274j, to revoke agreements with states and to restore NRC regulatory authority.

MEMORANDUM AND ORDER

The controversy before us today arises under the Commission's agreement-state program. Under section 274 of the Atomic Energy Act (AEA),[1] the Commission is authorized to enter into agreements with the governor of any state providing for transfer of regulatory authority to the state over specified categories of nuclear material. Prior to entering into a section 274 agreement, we must find that a state's regulatory program is "adequate" to protect the public health and safety with respect to the materials the state seeks to regulate, and "compatible" with our program for regulation of such materials.

In 2009, we entered into a section 274 agreement with the State of New Jersey providing for the transfer of regulatory authority to the state over source, byproduct, and special nuclear materials (in quantities below a critical mass). Shieldalloy Metallurgical Corporation, which had been pursuing license termination under the NRC's regulations for its source material site in New Jersey, filed suit in the United States Court of Appeals for the District of Columbia Circuit contesting the lawfulness of the agreement as to its site. In *Shieldalloy Metallurgical Corp. v. NRC,* the court found NRC's explanation of its transfer of regulatory authority to New Jersey with respect to Shieldalloy's site insufficient, vacated the transfer, and remanded the case to us to conduct proceedings consistent with the court's opinion.[2]

Today, we revisit New Jersey's application for regulatory authority as it pertains to the Shieldalloy site in light of the court's remand decision and in light of responses filed by New Jersey and Shieldalloy to our request for their views. For the reasons set forth below, we reinstate the transfer of our regulatory authority over Shieldalloy's site to New Jersey.

I. BACKGROUND

The background of this proceeding is set forth in detail in the court's decision in *Shieldalloy* and our prior decision denying Shieldalloy's request for a stay of the New Jersey agreement.[3] Here, we briefly summarize the background as relevant to our decision in response to the court's remand in *Shieldalloy.*

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[1] Atomic Energy Act of 1954, as amended, § 274, 42 U.S.C. § 2021 (2011).

[2] 624 F.3d 489 (D.C. Cir. 2010).

[3] *See Shieldalloy Metallurgical Corp.* (Decommissioning of Newfield, New Jersey Site), CLI-10-8, 71 NRC 142 (2010).

A. Shieldalloy's License Termination Application

Shieldalloy owns an industrial site containing radioactive waste in Newfield, New Jersey. At the time the NRC and New Jersey entered their section 274 agreement, Shieldalloy had for nearly 10 years sought NRC approval of a decommissioning plan for leaving radioactive material onsite under the NRC's license termination provisions for restricted release in 10 C.F.R. § 20.1403. The NRC Staff had considered and rejected Shieldalloy's original two onsite decommissioning proposals, filed in 2002 and 2005, respectively. In 2006, the Staff accepted and docketed a third proposed onsite disposal plan for the purpose of initiating a technical review. The Licensing Board granted a request for hearing by New Jersey opposing Shieldalloy's decommissioning plan for restricted release. The NRC Staff's review of Shieldalloy's third proposal uncovered numerous deficiencies, prompting multiple Staff requests for additional information in July 2007. Shieldalloy filed a revised plan in August 2009 in response to the Staff's information requests. By then, the Commission was on the verge of entering into the section 274 agreement with New Jersey. When the Commission formally entered the agreement and discontinued regulatory authority, the Staff terminated its review of Shieldalloy's decommissioning plan and forwarded the files associated with its safety and environmental review to New Jersey.

B. New Jersey's Agreement-State Application

In 2008, New Jersey applied to become an agreement state under section 274 of the AEA to regulate source material, byproduct material, and special nuclear material in quantities not sufficient to form a critical mass. After reviewing New Jersey's application, including the state's regulatory program, the NRC Staff found that the application met section 274's "compatibility" and "adequacy" requirements, and proposed that the Commission approve it. Prior to Commission approval, the NRC solicited public comments. Shieldalloy filed comments opposing the agreement-state application.

In its comments on the New Jersey application for an agreement, Shieldalloy largely complained that various aspects of New Jersey's decommissioning scheme were too strict compared to NRC's. The Staff rejected these objections, concluding that under section 274 and our longstanding agreement-state policy more stringent state regulation of license termination is permissible. Shieldalloy also commented that New Jersey's program fails to satisfy a number of criteria set forth in a longstanding Commission policy statement for assessing a state's program

for agreement-state purposes.[4] The Staff's responses to Shieldalloy's comments regarding one of these criteria, "Criterion 25," later proved central to the court's remand decision.

Criterion 25 states that "appropriate arrangements will be made by NRC and the State to ensure that there will be no interference with or interruption of licensed activities or the processing of license applications, by reason of the transfer." Shieldalloy invoked that criterion as support for its comment that NRC has the "power" to exclude the Newfield site from the transfer of authority to New Jersey, and retain it at NRC, even if the NRC decides to enter into the agreement with New Jersey. In response, the Staff stated that "Congress did not intend to allow concurrent regulatory authority over licensees for public health and safety" and "[i]f the NJ Agreement is approved by the Commission, upon the effective date of the Agreement, all NRC licensees within the categories of materials for which the State requested authority will transfer to the State."[5]

Shieldalloy also commented that New Jersey's program fails to satisfy Criterion 25 because New Jersey had not made "appropriate arrangements" with the NRC to ensure that there will be no interference with the processing of its proposed decommissioning plan when regulatory authority transferred to the state. The Staff responded, in pertinent part, that New Jersey law provides for recognizing existing NRC licenses, and that New Jersey "will continue any licensing actions that are in progress at the time of the Agreement and make the final decision on all pending licensing actions."[6] The Staff concluded that this "will ensure a smooth transition of authority from NRC to NJ so that licensees can continue to operate without interference with or interruption of licensed activities."[7]

We approved the agreement with New Jersey, and Shieldalloy subsequently filed its lawsuit challenging the NRC's entry into the agreement. The *Shieldalloy* court decision vacating the New Jersey agreement as to Shieldalloy's site, and remanding the case to the NRC for further proceedings, is the outcome of that lawsuit.

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[4] *See* Criteria for Guidance of States and NRC in Discontinuance of NRC Regulatory Authority and Assumption Thereof by States Through Agreement, 46 Fed. Reg. 7540 (Jan. 23, 1981) (1981 Policy Statement).

[5] "Section 274b Agreement with the State of New Jersey," Commission Paper SECY-09-0114, Memorandum from R.W. Borchardt, Executive Director for Operations, to the Commissioners (Aug. 18, 2009), Enclosure 2, "Staff Analysis of Public Comments," at 10 (ADAMS Accession No. ML091940200 (package)).

[6] *Id.* at 8.

[7] *Id.*

II. THE COURT'S REMAND

In its remand decision, the court held that the Commission's agreement-state decision and supporting Staff analysis did not adequately explain why the NRC could not have retained jurisdiction over Shieldalloy's site under Criterion 25. The court characterized the Staff's response to Shieldalloy's comment that the NRC had the authority to retain jurisdiction over the Shieldalloy site as "inapposite and woefully incomplete."[8] Referencing the NRC's prior approval of the State of Oklahoma's request, in its agreement-state application, for the NRC to retain jurisdiction over a "subcategory of materials,"[9] the court observed that the "NRC practice leaves it far more leeway than its dismissive answer to Shieldalloy suggests."[10]

The court also found "dismissive" and inadequate the NRC Staff's response to Shieldalloy's other comment invoking Criterion 25 — that transfer of the Shieldalloy site to New Jersey would be inconsistent with Criterion 25 because New Jersey "had not attempted to make appropriate arrangements to guarantee a smooth transition for the pending Shieldalloy decommissioning plan."[11] The court concluded that "[a]t the very least, the NRC should have explained how Shieldalloy's decommissioning process could proceed under the New Jersey regime free of the interference and interruption sought to be avoided by criterion 25 and why . . . partial transfer was not an appropriate alternative arrangement."[12]

The court did not decide various other Shieldalloy arguments against the NRC-New Jersey Agreement, including claims that New Jersey's regulatory scheme lacks an "ALARA" provision and is not "compatible" with the NRC's program in a number of other ways. The court concluded that NRC's "insufficient explanations" in response to Shieldalloy's comments regarding the applicability of Criterion 25 and retention of NRC jurisdiction over Shieldalloy's site rendered the transfer of jurisdiction to New Jersey as to Shieldalloy "arbitrary and capricious."[13] Hence, the court granted Shieldalloy's petition for review, vacated the transfer of authority as to the Shieldalloy site, and remanded for proceedings consistent with the court's opinion.[14]

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[8] *Shieldalloy,* 624 F.3d at 493.
[9] *Id.* at 493-94.
[10] *Id.* at 493.
[11] *Id.* at 493-94.
[12] *Id.* at 495.
[13] *Id.* at 497.
[14] *Id.*

III. DISCUSSION

Our evaluation of the New Jersey agreement included a review of the NRC Staff's analysis and comment responses. The court's remand decision as to the Newfield site centered only on the inadequacy of the Staff's responses to Shieldalloy's comments regarding Criterion 25. The court did not address Shieldalloy's other concerns. To assure a full airing of the matter, however, we decided to examine anew all of the issues surrounding transfer of the Newfield site to New Jersey and afford Shieldalloy a fresh opportunity to comment on New Jersey's agreement-state application. Accordingly, we invited Shieldalloy, as well as New Jersey, to submit any views on whether we should reinstate the transfer of regulatory authority to New Jersey or retain regulatory authority over the Shieldalloy site.[15] Shieldalloy and New Jersey each filed initial and reply responses on February 4, 2011, and February 11, 2011, respectively.[16] New Jersey, unsurprisingly, argues in favor of reinstating its agreement-state authority over the Shieldalloy site. Shieldalloy, on the other hand, again asserts that considerations of health and safety, as well as fairness and efficiency, dictate that we retain authority over its site. Shieldalloy objects to New Jersey being given agreement-state authority over its site on a number of grounds, some of which were reflected in its initial comments on New Jersey's application and others that it now raises before us for the first time.

After a full review, we again find it lawful and appropriate to transfer authority to New Jersey. We consider Shieldalloy's contrary arguments below.

A. Compliance with the Court's Remand Decision

Shieldalloy claims that the Commission must retain regulatory authority over the Newfield site in order to comply with the court's remand decision and mandate.[17] We disagree. The court's remand did not direct the outcome of our ultimate decision whether the Newfield site may be transferred to New Jersey. To the contrary, the court made clear that the basis for its decision to vacate the transfer of authority as to the Newfield site was "the NRC's insufficient

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[15] *See* Order (Requesting Views) at 1 (Jan. 3, 2011) (unpublished) (ADAMS Accession No. ML110030957).

[16] *See* Letter from Paula T. Dow, Attorney General of New Jersey, to USNRC (Feb. 4, 2011); Shieldalloy's Response to the Commission's January 3, 2011 Order (Feb. 4, 2011) (Shieldalloy Initial Response); Letter from Paula T. Dow, Attorney General of New Jersey, to USNRC (Feb. 11, 2011) (New Jersey Reply); Shieldalloy's Response to New Jersey's Letter Regarding the Commission's January 3, 2011 Order (Feb. 11, 2011) (Shieldalloy Reply).

[17] *See, e.g.,* Shieldalloy Initial Response at 8 ("The Court's decision and mandate signify that the Commission is to retain jurisdiction over the Newfield facility.").

explanations on the applicability of criterion 25 and the retention of jurisdiction."[18] The court explicitly did not address Shieldalloy's other claims as to the adequacy or compatibility of New Jersey's regulatory program.[19] Where, as here, there is a judicial remand to an agency on the ground of deficient reasoning, what the agency must do is improve its reasoning, not necessarily reach a different bottom-line result.[20] Therefore, we could have satisfied the court's remand by simply providing a more thorough response to Shieldalloy's comments regarding Criterion 25 and then relying on the remainder of the agency record already in existence. But by re-examining all pertinent issues surrounding transfer of the Newfield site and giving Shieldalloy a fresh opportunity to present its views, not limited to Criterion 25 or matters raised during the initial comment period, we are not only acting in compliance with the court's remand but also are going beyond what, strictly speaking, the court's remand required. We reject Shieldalloy's position that the court remand decision required us to retain regulatory authority over the Newfield site.

B. The Commission's Authority to Retain Jurisdiction Over a Site at the Request of a Licensee

In the late 1990s, in response to the State of Oklahoma's request to exclude certain decommissioning sites from its proposed section 274 agreement, we approved an NRC Staff-developed guideline for retaining NRC authority over subcategories of materials or activities within one of the three nuclear material categories (i.e. source, byproduct, or special nuclear material). The Staff policy developed for the Oklahoma agreement provided that state requests for limited agreements would be considered by the NRC only if the state can "'identify discrete categories of material or classes of licensed activity that (1) can be reserved to NRC authority without undue confusion to the regulated community

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[18] *Shieldalloy,* 624 F.2d at 497. *See also id.* at 493 (finding NRC's response to Shieldalloy's request for exclusion of Newfield site under Criterion 25 to be "inapposite and woefully incomplete"); 494 (finding "equally dismissive" the NRC's response to Shieldalloy's claim that Criterion 25 would not be satisfied because New Jersey would disrupt its license termination process).

[19] *Id.* at 496.

[20] *See, e.g., Heartland Regional Medical Center v. Leavitt,* 415 F.3d 24, 29-30 (D.C. Cir. 2005) ("[T]he usual rule is that . . . an agency that cures a problem identified by a court is free to reinstate the original result on remand."); *National Treasury Employees Union v. Federal Labor Relations Authority,* 30 F.3d 1510, 1514 (D.C. Cir. 1994) ("[W]e frequently remand matters to agencies while leaving open the possibility that the agencies can reach exactly the same result as long as they rely on the correct view of a law that they previously misinterpreted, or as long as they explain themselves better or develop better evidence for their position."). *See generally* R. Levin, *A Blackletter Statement of Federal Administrative Law,* 54 Admin. L. Rev. 1, 44-45 (2003).

or burden to NRC resources, and (2) can be applied logically, and consistently to existing and future licensees over time.'"[21]

In *Shieldalloy,* the court indicated that the NRC's refusal to retain regulatory authority over the Newfield site, as Shieldalloy had requested, appeared to be inconsistent with the policy for limited agreements and retention of sites that we developed in the Oklahoma agreement context. Noting that "NRC practice leaves it far more leeway [to retain individual sites within a materials category] than its dismissive answer to Shieldalloy suggests,"[22] the court pointed out that the NRC approved a limited agreement with Oklahoma excluding "certain subcategories of materials that in fact covered a very limited set of sites" within the state.[23] The court found that the Oklahoma limited agreement was "strikingly relevant to Shieldalloy's situation" in view of Shieldalloy's argument that "*its* radioactive wastes constitute the sole New Jersey example of a discrete subcategory of materials," and that the NRC had not explained why "partial transfer was not an appropriate alternative arrangement."[24]

The court noted, however, that at oral argument NRC's counsel offered an original interpretation of section 274's agreement-state provisions that distinguished New Jersey's agreement proposal from Oklahoma's. Citing AEA § 274d, 42 U.S.C. § 2021d, NRC's counsel argued, in effect, that "the statute did not permit a partial transfer otherwise than at the request of the would-be transferee state" if the NRC determines that the conditions of state certification, adequacy, and compatibility are satisfied.[25] The court acknowledged that "[t]his [interpretation] would rule out limiting transfers at the behest of regulated firms."[26] But the court observed that a different AEA provision, section 274b (42 U.S.C § 2021(b)), providing that "'the Commission is *authorized* to enter into agreements' with a state 'with respect to *any one or more of*' a variety of classes of nuclear materials" raises an ambiguity as to the NRC's "discretion to negotiate the terms of the agreement with the state requesting authority."[27] The court concluded that under applicable Supreme Court precedent — *Chevron, U.S.A. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837 (1984); *Securities and Exchange Commission v. Chenery Corp.,* 318 U.S. 80 (1943); and *United States v. Mead Corp.,* 533 U.S. 218 (2001) — it could not "defer to interpretive proposals offered by NRC

[21] *See Shieldalloy,* 624 F.3d at 494.
[22] *Id.* at 493.
[23] *Id.* at 494.
[24] *Id.* (emphasis in original).
[25] *Id.* at 495.
[26] *Id.*
[27] *Id.* (emphasis in original).

counsel at oral argument" and "affirm on the basis of that reading" when the statute does not "plainly compel" the reading being proposed.[28]

Shieldalloy claims that in this portion of its decision, the court "rejected" NRC counsel's proffered interpretation of the statute and "ruled that the NRC has no obligation to accept 'as is' an Agreement State application tendered by the applying State, but can modify it, on its own accord or as requested by regulated entities, to exclude certain facilities from the transfer of authority, as long as the criteria developed by the Staff [in the Oklahoma agreement context] . . . are satisfied."[29] According to Shieldalloy, therefore, "the NRC can retain jurisdiction over the Newfield facility even if it transfers other facilities to New Jersey."[30]

While we previously approved a Staff-developed policy in the Oklahoma agreement context for retaining jurisdiction over subcategories of materials or activities, until now we have not had occasion to squarely address the parameters of our legal authority to enter into partial agreements, whether at the request of a licensee or at the request of a state. We discuss our authority below.

At the outset, we reject Shieldalloy's position that the court rejected the statutory interpretation proffered by NRC counsel at oral argument. Based on familiar Supreme Court doctrine concerning judicial deference to an agency's interpretation of a statute that it administers, the court held only that "[o]n the current record we *cannot decide* the interpretation of the statute."[31] The court, in other words, left open the interpretive issue. Stating that it could not defer to an interpretation at issue offered at oral argument by counsel, the court said that the Commission itself "ha[d] not exercised any interpretive discretion."[32] In short, we remain entirely free, unrestrained by any judicial holding, to decide for ourselves what section 274 requires.

The pertinent statutory provisions on the scope of our authority in entering section 274 agreements are contained in sections 274b and 274d of the AEA, 42 U.S.C. §§ 2021(b), 2021(d). We start with subsection b. It states, in pertinent part, that "the Commission is authorized to enter into agreements with the Governor of any State providing for discontinuance of the regulatory authority of the Commission . . . with respect to any one or more of the following materials within the State." We give that subsection its most natural reading: it simply provides a general grant of legal authority to the Commission to turn regulatory authority over certain designated nuclear materials to the states, and gives no more specific command. We find support for our construction in the overall statutory language and legislative history underlying section 274. A stated purpose of the legislation

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[28] *Id.*

[29] Shieldalloy Initial Response at 12.

[30] *Id.*

[31] *Shieldalloy,* 624 F.3d at 495 (emphasis added).

[32] *Id.*

was "to clarify the respective responsibilities under [the AEA] of the States and the Commission with respect to the regulation of byproduct, source, and special nuclear materials."[33] At the time the proposed agreement-state legislation was under consideration, there was still confusion and debate as to what room, if any, the AEA left for state regulation of nuclear materials — i.e., whether the AEA preempted state regulation in the nuclear field. Explicitly giving the Commission the legal authority to turn its regulatory authority over to the states ended this debate, resulting in a framework clearly delineating when the states could regulate nuclear materials and when they could not:

> [T]here is a considerable view that under the [AEA] . . . , while the States may have some authority in areas of the Commission's regulatory responsibilities, there are undoubtedly some things the States do not have authority to do. The purpose of the bill is to provide a legal basis on which with legislative approval the Commission would be given the authority, as to certain designated areas which the States have a potential capability for controlling, to turn these over to the States and [the Commission's] regulatory responsibility would cease at that time if the States were prepared.[34]

We turn now to a more specific provision, subsection d, which states, in pertinent part, that the Commission "*shall* enter into an agreement under subsection b of this section with any State *if*" certain conditions are met — namely, the state's governor "certifies that the State has a program for the control of radiation hazards adequate to protect the public health and safety with respect to the materials within the State covered by the proposed agreement, and that the State desires to assume regulatory responsibility for such materials," and "the Commission finds that the State program is . . . compatible with the Commission's program for regulation of such materials, and . . . adequate to protect the public health and safety with respect to the materials covered by the proposed agreement." (Emphasis added.) We construe subsection d as providing the specific conditions under which the Commission "shall" exercise the general legal authority granted to it under subsection b.

As the court implicitly recognized in its remand decision,[35] the term "shall," by its plain meaning, is mandatory in nature.[36] The legislative history of section 274

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[33] AEA § 274a(1), 42 U.S.C. § 2021(a)(1).

[34] *Federal-State Relationships in the Atomic Energy Field: Hearings Before the Joint Committee on Atomic Energy,* 86th Cong. at 301 (1959) (Joint Committee Hearings) (testimony of Robert Lowenstein, Atomic Energy Commission, Office of the General Counsel).

[35] *Shieldalloy,* 624 F.2d at 495.

[36] *See United States v. Monzel,* Nos. 11-3008, 11-3009, 2011 WL 1466365 at *2 (D.C. Cir. Apr. 19, 2011) ("'shall' is a term of legal significance, in that it is mandatory or imperative, not merely precatory").

reveals that the use of a mandatory term was deliberate, replacing a discretionary term that had appeared in an earlier version of the agreement-state proposal.

The agreement-state provisions in AEA § 274 originated with proposed legislation submitted by the Atomic Energy Commission (AEC) to the Joint Committee on Atomic Energy, at the Joint Committee's request.[37] The AEC submitted a draft version of the proposed legislation in March 1959 and a final version in May 1959. In both the draft and final versions, the AEC's legislative proposal contained a general authorization provision that tracks the current subsection b and a specific authorization provision that tracks the current subsection d. In the precursor to subsection d, however, the AEA's March 1959 draft did not use the word "shall." Instead, the March 1959 draft provided that the "Commission *may* enter into an agreement under subsection a of this section with any State if [the conditions of state certification and Commission finding of adequacy and compatibility are met]."[38] In the AEA's final May 1959 proposal, the discretionary term "may" was replaced with the mandatory term "shall."[39]

Given the mandatory language used in subsection d, we construe it as requiring us to enter into an agreement for state regulation of the particular categories of nuclear materials that a state certifies it both desires to regulate and has established a program for — provided that we find the state's program for regulation of such materials to be adequate and compatible.

Our construction of the statute is consistent with the central purpose and policy animating the agreement-state legislation — "to recognize the interests of the States in the peaceful uses of atomic energy. . . ."[40] In enacting the legislation (as amendments to the AEA in 1959), Congress acknowledged the significant interest of the states in regulating radiation hazards that are "local and limited" in nature[41] and do not involve "interstate, national, or international considerations."[42] Thus, the 1959 amendments were intended "generally to increase the States' role" in

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[37] *See Report by the Joint Committee on Atomic Energy: Amendments to the Atomic Energy Act of 1954, as amended, with Respect to Cooperation with the States,* H.R. Rep. No. 86-1125, 86th Cong., 1st Sess. at 6 (Joint Committee Report).

[38] *Selected Materials on Federal-State Cooperation in the Atomic Energy Field,* 86th Cong., 1st Sess. at 27 (1959) (emphasis added) (Selected Materials on Federal-State Cooperation).

[39] *See* Joint Committee Hearings at 295. Companion bills, S. 1987, introduced by Senator Anderson, and H.R. 7214, introduced by Representative Durham, incorporated the AEA's final, May 1959 version of the proposed agreement-state legislation essentially verbatim. After a week of hearings, the Joint Committee approved minor amendments to the bills (renumbered S. 2568 and H.R. 8755), and the agreement-state legislation was enacted on September 23, 1959 as Public Law 86-376.

[40] AEA § 274a(1), 42 U.S.C. § 2021(a)(1) (2011).

[41] Joint Committee Report at 8.

[42] *Id.* at 3.

regulation of nuclear materials.[43] This legislative objective prompted Congress to resolve the complex and "difficult question of Federal-State relationship in connection with nuclear activities," mindful of the "delicate ground [that] exists between the jurisdiction of the Federal Government and the sovereign jurisdiction of the States. . . ."[44]

In the enacted legislation, as reflected in subsection d, Congress struck a balance between federal and state interests and gave the NRC and the states each a carefully defined role in effectuating a section 274 agreement. As evident from the statutory language, it is the state's role to determine, first and foremost, which categories of nuclear materials — source, byproduct, or special nuclear material — it wishes to assume regulatory authority over. Once a state makes this determination and proposes an agreement to assume regulation over certain nuclear materials, it is the NRC's role to determine whether the state's program is adequate for protection of the public health and safety and compatible with the NRC's program.

In its remand order, the court indicated that the language in subsection b, despite the mandatory provision in subsection d, suggests that the Commission may have been afforded some discretion in shaping the terms of an agreement. The court observed that subsection b, by providing that the Commission is "*authorized*" to enter into agreements with respect to "'*any one or more* of' a variety of classes of nuclear materials, . . . suggests that NRC is not *required* to enter into agreements" but "that it has discretion to negotiate the terms of the agreement with the state requesting authority."[45]

We have closely examined the language of this subsection in light of the court's observation and in the context of the question presented here — whether subsection b gives us the discretion to retain a site under NRC jurisdiction at a licensee's request if the subsection d conditions of state certification and adequacy and compatibility are met. We conclude that subsection b does not reasonably lend itself to this interpretation. As discussed above, we construe subsection b as providing a general grant of legal authority to the NRC to enter into agreements with states to relinquish its authority, and subsection d as setting forth the specific conditions for the Commission's exercise of that authority. We

[43] *English v. General Electric Co.,* 496 U.S. 72, 81 (1990). *See also Pacific Gas & Electric Co. v. State Energy Resource Conservation & Development Commission,* 461 U.S. 190, 209 (1983) ("The point of the 1959 Amendments was to heighten the states' role.").

[44] 105 Cong. Rec. S17510 (Sept. 11, 1959) (Remark of Sen. Hickenlooper). *See also* 128 Cong. Rec. S17506 (Sept. 11, 1959) (Remark of Sen. Anderson) (expressing concern that "there will be confusion and possible conflict between Federal and State regulations and uncertainty on the part of the industry and possible jeopardy to the public health and safety" if the AEA continues to remain "silent as to the regulatory role of the States").

[45] *Shieldalloy,* 624 F.3d at 495 (emphasis in original).

agree that the particular language highlighted by the court — "one or more of the following materials within the State" — does give us some leeway in entering into agreements, but it is not the type of flexibility, or "discretion," sought by Shieldalloy and alluded to by the court.

The language "one or more of the following materials within the State" refers to each *category* of nuclear materials listed in subsection b — i.e., source, byproduct, or special nuclear material in quantities not sufficient to form a critical mass. We interpret this language to give the Commission the flexibility to enter into agreements that cover less than all three nuclear material categories at one time. This would allow us, for example, to enter into an initial agreement for one nuclear material category and subsequent agreements for the remaining categories. Accordingly, we read subsections b and d, together, as giving us the authority and flexibility to enter into limited agreements depending on a state's desire and readiness to assume jurisdiction but not as giving us authority to withhold authority from a state that wants it and has a qualifying program.

Again, the legislative history supports our construction. It reflects considerable concern that there be a reasonable transition period following enactment of the legislation, so that authority not be turned over to the states hastily, before states had an opportunity to develop adequate regulatory programs. In its report on the companion bills that were enacted into law (H.R. 8755 and S. 2568), the Joint Committee stated that the "bill does not authorize a wholesale relinquishment or abdication by the Commission of its regulatory responsibilities but only a gradual, carefully considered turnover, on a State-by-State basis, as individual States may become qualified."[46] Likewise, in testimony during the hearings on the companion bills incorporating the AEA's proposed legislation (S. 1987 and H.R. 7214), a representative from the AEC's Office of the General Counsel explained:

> Before I left these three categories, I did want to point out that under this bill the Commission as a State became ready and by agreement with the Governor, could turn over any one or more of these categories. We would not try to break them down. If a State were ready to assume its responsibilities in the way of regulation with respect to byproduct materials, the agreement would provide for a turnover of these responsibilities with respect to this entire category. However, there might be a series of agreements with a particular State adding additional categories as time goes on, and the State program develops. It would be the intention of the Commission under this bill to enter into agreements with the States covering all of these three categories as soon as the States are prepared to assume those responsibilities.[47]

[46] Joint Committee Report at 8.

[47] Joint Committee Hearings at 305 (testimony of Robert Lowenstein). *See also id.* at 292 ("I think we do not want to walk away . . . and expose the public health and safety unduly in the sense of *(Continued)*

We find nothing in this legislative history or in the statute itself to suggest that we may, over the objections of a state desiring jurisdiction and for reasons other than health and safety or compatibility, retain regulatory authority over pending applications involving a nuclear materials category otherwise transferred to a state. The language and legislative history, if anything, appear to point the other way. Another stated purpose of the statute was "to promote an orderly regulatory pattern between the Commission and State governments with respect to nuclear development and use and regulation of byproduct, source, and special nuclear materials."[48] The legislative history sheds light on what Congress believed would undermine an "orderly regulatory pattern" between NRC and the states, reflecting a congressional intent to avoid any form of "concurrent" or piecemeal federal-state jurisdiction over a specified nuclear materials category. For example, in its report on the final companion bills, the Joint Committee explained:

> It is not intended to leave any room for the exercise of dual or concurrent jurisdiction by States to control radiation hazards by regulation of byproduct, source, or special nuclear materials. The intent is to have the material regulated and licensed either by the Commission, or by the State and local governments, but not by both. The Bill is intended to encourage States to increase their knowledge and capacities, and to enter into agreements to assume regulatory responsibilities over such materials.[49]

Thus, Congress wanted to provide a framework for "centralized responsibility."[50] It desired states to assume authority either over all of the sites within a particular nuclear materials category or over none of the sites within that category.

Where the requisite state certifications and NRC findings of adequacy and compatibility are met, limiting transfers over pending applications at a licensee's request, for reasons other than adequacy or compatibility, could seriously undermine congressional intent to avoid a patchwork of federal-state regulation. Licensees would have an incentive to manipulate the license application process depending on which regulatory scheme they preferred for financial or other commercial interests apart from health and safety or compatibility. The statutory language and legislative history contain no suggestion that such interests were to

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being too fast . . . . It is certainly something which you would have to do in cooperation with the States . . . if this bill were enacted right away, you could not do it immediately.") (testimony of AEC Commissioner John S. Graham); Selected Materials on Federal-State Cooperation at 29 (1959) (analysis of AEA's March 1959 legislative proposal).

[48] AEA § 274a(3).

[49] Joint Committee Report at 9.

[50] Joint Committee Hearings at 316 (testimony of Robert Lowenstein).

play any part in the terms of our agreements with states or could override a state's desire and readiness to assume regulatory authority.[51]

Returning to the NRC-Oklahoma agreement that attracted the court's interest, the policy we approved there — approving the state's request to take authority for some but not all nuclear materials — reinforced our commitment to enforcing the statutory intent to respect the wishes of the states as to their readiness to regulate particular materials. The Oklahoma agreement came in the context of a *state* being unwilling to assume jurisdiction over certain subcategories within a particular nuclear material category. Limiting transfers over sites with pending applications, "at the behest of regulated firms"[52] and over a state's objection, as Shieldalloy would like, is quite a different matter.[53] That approach would have the NRC override, on grounds not specified in the statute, the state's expression of readiness. The Oklahoma policy was never intended to apply — and has never been applied — in the context of a *licensee's* request to remain under NRC's authority.

In sum, based on our examination of the statutory language and legislative history, and based on our past policy and practice, we cannot find that Congress gave us the discretion to retain regulatory authority in circumstances like Shieldalloy's. We cannot turn down a state's request for authority for reasons apart from the sole statutory considerations: a state program's adequacy and compatibility.

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[51] The legislative history, in fact, reflects that the Joint Committee took no action on a suggested approach that would have required the Commission to consider financial interests of regulated entities as a condition of approving a proposed state agreement. Specifically, materials compiled for the Joint Committee in advance of the hearings on the original agreement-state companion bills, S. 1987 and H.R. 7214, included a lengthy academic study by professors at the University of Michigan "prepared especially for the Joint Committee." Selected Materials on Federal-State Cooperation at III. That study recommended two "[c]riteria for approval of [state] plans." *Id.* at 447. One criterion was essentially the same as the "adequacy" condition included in S. 1987 and H.R. 7214 — that a proposed state program "must be adequate to protect the health and safety of the public." *Id.* But for the second criterion, the authors recommended that a proposed state plan "must not unnecessarily burden industry." *Id.* In the final bills, S. 2568 and H.R. 8755, the Joint Committee retained the "compatibility" criterion contained in the original companion bills, without adding any language related to "burdening industry."

[52] *Shieldalloy,* 624 F.3d at 495.

[53] If a state is unable or unwilling to make the required certifications under subsection d — that it has an adequate program for the protection of public health and safety and desires to assume regulatory responsibility — for the subcategories of material or activity it wishes the NRC to retain, in effect, a statutory condition for the Commission to exercise its authority to enter into an agreement for those subcategories will not have been met. On the other hand, allowing states to enter into an agreement for something less than an entire category of nuclear materials, as Oklahoma had requested, ostensibly conflicts with congressional intent regarding concurrent federal-state jurisdiction. The Oklahoma policy, therefore, grew out of a need for the NRC to reconcile the interest of a state, reflected in subsection d, to decide what areas of nuclear regulation it is ready and willing to assume, with Congress's desire to avoid piecemeal NRC-state jurisdiction within a single materials category.

C. Adequacy and Compatibility of New Jersey's Program as to License Termination

In light of our conclusion regarding the scope of our legal authority, our decision whether to retain jurisdiction over the Newfield site or reinstate New Jersey's regulatory authority turns on whether New Jersey's license termination program is "adequate to protect the public health and safety with respect to the materials covered by the proposed agreement" and "compatible with the Commission's program for regulation of such materials" within the meaning of section 274d and our implementing agreement-state policies. As discussed below, we find that New Jersey's program is "adequate" and "compatible."

1. Regulatory Framework

Before we turn to the specific issues regarding adequacy and compatibility raised by Shieldalloy and implicated in the court's remand decision, we review our own and New Jersey's regulatory framework as relevant to this case.

a. The NRC's Agreement-State Policy

We have implemented section 274 through two major policy statements that set forth the framework for state regulatory programs that are both "adequate" to protect the public health and safety and "compatible" with the Commission's regulatory program, as section 274 requires. Our first policy statement, containing thirty-six criteria for assessing a state's program, including the criterion (Criterion 25) that was the focus of the court's remand decision, was issued in 1961 and updated in 1981, but remains virtually unchanged from its original issuance in 1961, except in respects not relevant here.[54] A later policy statement, issued in 1997, established a more refined approach for determining, with respect to both new and existing agreements, whether a state's program is "adequate" and "compatible."[55] As a general matter, "adequacy" focuses "on the protection of public health and safety within a particular State," to accommodate "local needs and conditions," whereas "compatibility" focuses "on the impacts of an Agreement State's regulation of agreement material on a nationwide basis or its potential effects on other jurisdictions."[56]

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[54] *See generally* 1981 Policy Statement, 46 Fed. Reg. 7540.

[55] Statement of Principles and Policy for the Agreement State Program; Policy Statement on Adequacy and Compatibility of Agreement State Programs, 62 Fed. Reg. 46,517 (Sept. 3, 1997) (1997 Policy Statement).

[56] *Id.* at 46,520, 46,523-24.

As we explained in our 1997 Policy Statement, "adequacy" "presumes" that the "level of protection of NRC's regulatory program is . . . that which is adequate to provide a reasonable assurance of protection of public health and safety."[57] Thus, to be "adequate," the "overall level of protection of public health and safety provided by a State program should be equivalent to, or greater than, the level provided by the NRC program."[58]

Regarding "compatibility," a state's program is acceptable "when its program does not create conflicts, duplications, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis."[59] Our 1997 Policy Statement establishes five "compatibility categories" — A, B, C, D, and E — to be assigned to NRC's regulations for the purpose of assessing a state's proposed or existing program for compatibility.[60] These categories indicate which aspects of NRC's regulatory program a state *must* adopt, and which aspects a state has flexibility to depart from or modify. The compatibility designation for an NRC regulation is determined as part of the public rulemaking process, at the time the regulation is promulgated.

A state must adopt regulations that are "essentially identical" to NRC regulations classified as compatibility category "A" or "B."[61] Category A includes NRC regulations establishing "basic radiation protection standards," such as "dose limits, concentration and release limits related to radiation protection . . . that are generally applicable."[62] Category B consists of regulations, such as transportation regulations, that have "significant transboundary implications."[63]

Category C consists of those aspects of NRC's regulatory program (referred to as "program elements") that an agreement-state program must incorporate "to avoid conflicts, duplications, gaps, or other conditions that would jeopardize an orderly pattern in the regulation of agreement material on a nationwide basis."[64] To be "compatible" with a Category C program element, an agreement state need not adopt regulations identical to NRC's, unlike those in Categories A and B, but the state's program must "embody the essential objective" of the corresponding NRC program element. *Id.* Categories D and E are not pertinent to this case.

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[57] *Id.* at 46,524.
[58] *Id.*
[59] *Id.*
[60] *Id.*
[61] *Id.*
[62] *Id.*
[63] *Id.*
[64] *Id.*

b. ALARA

Our regulations establish maximum dose exposure standards — i.e., dose limits — for protecting the public and occupational workers from radiation resulting from NRC-authorized activities, including license termination.[65] For example, the basic dose limit for individual members of the public from a licensed activity is a total effective dose equivalent of 100 millirem (mrem) per year,[66] and the dose limit for license termination is a "constraint within the public dose limit" of 25 mrem per year to members of the public.[67]

Our regulations also contain a regulatory principle known as "ALARA" — "as low as is reasonably achievable." ALARA is defined in 10 C.F.R. Part 20 as "every reasonable effort to maintain exposures to radiation as far below the dose limits in this part as is practical consistent with the purpose for which the licensed activity is undertaken."[68] ALARA is a general requirement for all "doses to members of the public" established in the "Radiation Protection Programs" in 10 C.F.R. Part 20, including the license termination dose criteria.[69]

For complex decommissioning activities, ALARA levels — that is, radiation exposures *below* regulatory dose limits — are determined through a cost-benefit analysis described in various NRC guidance documents.[70] An ALARA analysis calls for comparing potential benefits of incremental reductions in radioactivity levels below a specified dose limit to potential costs of such reductions.[71]

c. The NRC's License Termination Rule

In our license termination rule, we established a 25 mrem per year public dose limit and other criteria for license termination.[72] A comprehensive NRC guidance document, NUREG-1757, Consolidated Decommissioning Guidance, *supra,* explains in detail how we expect to implement the license termination rule. The rule provides criteria for license termination for both "unrestricted use" and "restricted use." Terminating a license for unrestricted use would allow no dependence on

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[65] *See* 10 C.F.R. Part 20.

[66] *See* 10 C.F.R. § 20.1301.

[67] *See* Final Rule: "Radiological Criteria for License Termination," 62 Fed. Reg. 39,058, 39,080 (July 21, 1997) (License Termination Rule); 10 C.F.R. §§ 20.1402 and 20.1403(b).

[68] *See* 10 C.F.R. § 20.1003.

[69] *See* 10 C.F.R. § 20.1101(b) ("The licensee shall 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 (ALARA).").

[70] *See, e.g.,* "Consolidated Decommissioning Guidance: Characterization, Survey, and Determination of Radiological Criteria," NUREG-1757, Vol. 2 (Rev. 1 Sept. 2006), Appendix N.

[71] *Id.* at N-3.

[72] *See generally* License Termination Rule, 62 Fed. Reg. at 39,058; 10 C.F.R. Part 20, Subpart E.

"institutional controls," i.e., governmental monitoring of engineered barriers and land-use restrictions, to achieve a maximum dose of 25 mrem per year to a member of the public upon termination of the license.[73] Terminating a license for restricted use would rely on legally enforceable institutional controls to achieve the 25 mrem dose limit.[74]

The ALARA requirement in 10 C.F.R. § 20.1101(b) applies to the dose criteria for license termination.[75] Thus, for license termination under either restricted use or unrestricted use, doses to a member of the public must not only be 25 mrem per year or lower but also as low as reasonably achievable.[76]

The license termination rule, in section 20.1403(a), requires that an ALARA-based analysis be performed to identify whether a site is eligible or ineligible for further consideration of restricted release.[77] As a threshold matter a licensee must demonstrate that it is entitled, or "initially eligible," to pursue license termination under restricted use.[78] The initial eligibility demonstration under section 20.1403(a) employs a cost-benefit analysis — either a conventional ALARA analysis or an analysis of "net public or environmental harm," which incorporates a subset of the factors used in a conventional ALARA analysis.[79]

Sites not "eligible" for restricted release must be remediated to unrestricted use in accordance with 10 C.F.R. § 20.1402. If a licensee is able to demonstrate initial eligibility for restricted release, it must then show that the restricted-release dose criteria will be met.[80] The licensee must establish that: the dose to a member of the public with legally enforceable institutional controls in place will not exceed 25 mrem per year, and is as low as reasonably achievable[81]; and if institutional controls fail and engineered barriers have degraded over a period of time,[82] the

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[73] *See* 10 C.F.R. § 20.1402.

[74] *See* 10 C.F.R. § 20.1403.

[75] *See* 10 C.F.R. § 20.1101(b) (requiring that doses be ALARA for all "doses to members of the public" established in Part 20's "Radiation Protection Programs").

[76] *See also* 10 C.F.R. §§ 20.1402 and 20.1403; License Termination Rule, 62 Fed. Reg. at 39,065; NUREG-1757, "Consolidated Decommissioning Guidance: Decommissioning Process for Materials Licensees," Vol. 1, Rev. 2 (Oct. 2006), § 17.7.6, at 17-87 (ADAMS Accession No. ML063000243) (doses for restricted release cannot exceed 25 mrem per year with institutional controls in place and must be as low as reasonably achievable).

[77] *See* 10 C.F.R. § 20.1403(a).

[78] *See* NUREG-1757, Vol. 1, § 17.7.2, at 17-70 (licensee must "demonstrat[e] that it is initially eligible to further evaluate release of the site, under the provisions of 10 C.F.R. § 20.1403").

[79] *See* NUREG-1757, Vol. 2, Rev. 1, at N-13, N-14.

[80] *See* 10 C.F.R. § 20.1403.

[81] 10 C.F.R. §§ 20.1101(b) and 20.1403(b); NUREG-1757, Vol. 1, § 17.7.6, at 17-87.

[82] NRC does not require dose calculations for the institutional controls failure scenario to assume "instantaneous and complete failure of a barrier" but permits the licensee to assume that "barriers may degrade over time." *See* NUREG-1757, Vol. 2, § 3.5.2, at 3-12.

dose to a member of the public will not exceed 100 mrem per year (or 500 mrem per year under certain circumstances), and is as low as reasonably achievable.[83] If the licensee cannot satisfy those criteria, its site will not "be considered acceptable for license termination under restricted conditions,"[84] and the site must be remediated to unrestricted-release levels pursuant to 10 C.F.R. § 20.1402.

When the license termination rule was at the proposed-rule stage, we requested comments on a "compatibility" determination for the rule, for agreement-state purposes. Consistent with the local nature of the radiological impacts of license termination, we categorized the license termination rule as the equivalent of a Category C regulation.[85]

d. New Jersey's License Termination Program

In its regulations, New Jersey incorporated by reference many of our regulations in 10 C.F.R. Part 20, including 10 C.F.R. § 20.1101(b), requiring that public doses for all Part 20 radiation protection programs be as low as reasonably achievable (ALARA), and 10 C.F.R. § 20.1301, establishing a basic radiation protection public dose standard of 100 mrem per year.[86] With respect to license termination, New Jersey promulgated its own regulations rather than incorporate by reference our regulations in 10 C.F.R. §§ 20.1401-1405.[87]

Under New Jersey's license termination regulations, a licensee is required to show (using specified methods — concentration tables or dose modeling) that, for "an unrestricted use remedial action, limited restricted use remedial action, or a restricted use remedial action," the total effective dose equivalent to members of the public would not be more than *15 mrem* per year — as compared to the *25 mrem* per year limit in our regulations.[88] New Jersey also adopted other requirements relating to license termination that incorporate more conservative dose calculation methodologies than our requirements. New Jersey's license termination regulations require, *inter alia,* (1) that dose calculations be

[83] 10 C.F.R. § 20.1403(e).

[84] 10 C.F.R. § 20.1403.

[85] At the time the license termination rule was issued, we were in the process of revising our compatibility categorization, ultimately approving the current compatibility categories reflected in the 1997 Policy Statement. The prior compatibility policy categorized rules into "Divisions." Division 2 is the equivalent of today's compatibility category "C." *See* License Termination Rule, 62 Fed. Reg. at 39,079. Agreement states were required to address the "underlying principles" of these rules but did not have to use language identical to the NRC's rules, and could "adopt requirements more stringent than NRC's rules." *Id.* at 39,079-80.

[86] *See* N.J. Admin. Code § 7:28-6.1(a).

[87] *Id.* § 7:28-6.1(c).

[88] *See id.* §§ 7:28-12.8(a)(1), 12.9, 12.10, and 12.11.

"performed out to the time of peak dose or 1000 years, whichever is longer,"[89] as compared to our requirement that dose calculations be limited to the first 1000 years after decommissioning;[90] (2) that doses to members of the public not exceed 100 mrem per year if there were a simultaneous and complete failure of both institutional controls and engineered barriers at a restricted use site,[91] as compared to our dose criteria of 100 mrem or 500 mrem under certain circumstances,[92] under the assumption that failure of institutional controls will result in engineered barriers degrading over time;[93] and (3) that radioactively contaminated ground and surface water must be remediated in accordance with New Jersey water quality requirements,[94] as compared to our "all pathways" approach without a separate release standard for water.

2. Analysis

a. Criterion 25

In its remand decision, the court, while acknowledging that "the NRC need not automatically consider every single pending licensing action individually" in its agreement-state decisions, observed that "in this case, the NRC had a long history of dialogue and cooperation regarding the termination of a license, the state has been consistently hostile to those termination proceedings, and the regulated entity alerted the NRC not only to the likely interference with decommissioning but also to partial transfer as a possible solution."[95] The court found that "[a]t the very least, the NRC should have explained how Shieldalloy's decommissioning process could proceed under the New Jersey regime free of the interference and interruption sought to be avoided by criterion 25."[96] In its filings, Shieldalloy echoes the court's remarks and claims that the "New Jersey Program violates Criterion 25 and the NRC cannot lawfully transfer regulatory authority over the Newfield Facility to the State."[97]

The court, in its remand decision, as well as Shieldalloy, seemingly understand Criterion 25's terminology, "appropriate arrangements will be made by NRC and the State to ensure that there will be no interference with or interruption of

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[89] *Id.* § 7:28-12.10(d).
[90] 10 C.F.R. § 20.1401(d).
[91] N.J. Admin. Code §§ 7:28-12.10(e), 7:28-12.11(e).
[92] 10 C.F.R. § 20.1403(e).
[93] NUREG-1757, Vol. 2, § 3.5.2, at 3-12.
[94] N.J. Admin. Code § 7:28-12.8(b) and (c).
[95] *Shieldalloy,* 624 F.3d at 494-95.
[96] *Id.* at 495.
[97] Shieldalloy Initial Response at 9.

. . . the processing of license applications, by reason of the transfer," to refer to ensuring continued application of the same *substantive* standards for processing pending applications. Viewed this way, Criterion 25's "intended preclusion of 'interference with or interruption of licensed activities or the processing of applications,'"[98] would oblige NRC to make arrangements with a state to ensure that, once transferred, pending applications will continue to be processed by the state under regulatory standards that are the same as or closely similar to ours, even if we approve a different, more stringent state regime as being adequate and compatible.[99] But our examination of 50 years of practice in applying Criterion 25 when entering into new agreements — there are 37 such agreements in place — shows that Criterion 25 was not intended to be construed in this manner. We do not construe and have never construed Criterion 25 as in any way relating to substantive standards or the regulatory outcome of a pending license application, even where as in Shieldalloy's case a license application has been pending at the NRC for an extended period.

Criterion 25 remains unchanged in substance from the Commission's 1961 Policy Statement.[100] With respect to pending applications, as well as existing licenses, Criterion 25 has from the beginning consistently been understood by us and the Staff as purely administrative in nature.[101] The purpose of that criterion, which is applicable by its own terms to both the NRC and the state, is to ensure that licensing records are transferred to and received by the new agreement state in an orderly manner that ensures that no pending licensing actions will be significantly delayed or that no records will be lost or misplaced as a result of the transition of authority. It is a housekeeping criterion, not a substantive one.

We historically have addressed Criterion 25 through a Staff-developed transition plan for each new agreement. The transition plan involves coordinating with the state's regulatory staff to facilitate a smooth and seamless transfer of the NRC's records for all licenses and pending license applications in a form that can be readily used by the state to continue licensing actions and inspection programs under the state's own regulatory program, without interruption or interference.

Consistent with the approach followed for every other agreement-state applica-

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[98] *Shieldalloy,* 624 F.3d at 494.

[99] Partial transfer — i.e., NRC retention of regulatory authority over a pending application — was another alternative for meeting Criterion 25 the Court suggested we consider. *See Shieldalloy,* 624 F.3d at 495. We concluded above that we do not have authority to enter into partial transfers at the request of a licensee and over the objections of a state if we find the state's program adequate and compatible.

[100] *See* Criteria for Guidance of States and AEC in Discontinuance of AEC Regulatory Authority and Assumption Thereof by States Through Agreement, 26 Fed. Reg. 2536, 2539 (Mar. 24, 1961).

[101] We note that we viewed Criterion 25 as an administrative matter in our order rejecting Shieldalloy's request for stay of the New Jersey agreement. *See Shieldalloy,* CLI-10-8, 71 NRC at 162.

tion over the past 50 years, the Staff developed a transition plan for the New Jersey agreement in coordination with New Jersey's regulatory staff, and transferred the relevant licensing records to New Jersey on the effective date of the New Jersey agreement.[102] In accordance with the transition plan, the Staff transferred from NRC to New Jersey the records for 490 existing NRC licenses, including the existing Shieldalloy license and five other licenses involving source material, and seventeen pending license applications, including the pending decommissioning plan application for the Newfield site. No licensing records have been identified as being lost or misplaced as a result of the transfer, and New Jersey was able to commence its regulation over the transferred licenses and pending applications immediately after the transfer. Thus, we believe that our Staff, in coordination with the state's regulatory Staff, fulfilled the administrative purpose of Criterion 25, to ensure that "there will be no interference with or interruption of licensed activities or the processing of license applications, by reason of the transfer."

In entering into an agreement with any state, we fully anticipate and expect that the state's regulatory approaches and decisions may differ from ours. We have long recognized that agreement states "should be provided with flexibility in program implementation to accommodate individual State preferences, State legislative direction, and local needs and conditions," including the flexibility to "incorporat[e] more stringent, or similar, requirements."[103] Thus, we do not view New Jersey's prompt implementation of the state's license termination regulations as in any way constituting "interference with or interruption of" Shieldalloy's pursuit of license termination at the Newfield site within the meaning of Criterion 25. To the contrary, by promptly notifying Shieldalloy that its license termination plan for the Newfield site would need to be revised in accordance with New Jersey's regulations, New Jersey, upon receipt of regulatory authority, was simply moving the process for license termination at the Newfield site forward in a timely manner as contemplated by Criterion 25. In doing so, New Jersey acted well within its authority as a new agreement state to implement a regulatory program that we had found differed from ours in permissible ways.

Finally, contrary to Shieldalloy's view, we do not construe and have never construed Criterion 25 as a vehicle to preclude the transfer of pending license applications to an agreement state on the ground that NRC and the licensee had already devoted resources to the application when it was before the NRC. Our transfer of Shieldalloy's pending application to New Jersey, along with sixteen other pending applications, was consistent with our approach for every other

[102] *See* State of New Jersey Transition Plan — Status Update (June 15, 2011) (ADAMS Accession No. ML111671959). As described by the NRC Staff, the "New Jersey Transition Plan . . . was for internal use by Region I DNMS staff as a guide for activities conducted during the transition of New Jersey to an Agreement State." *Id.*

[103] 1997 Policy Statement, 62 Fed. Reg. at 46,520.

agreement over the course of 50 years. Upon entering into a section 274 agreement, we have routinely and repeatedly transferred *all* pending NRC license applications to a state (absent a state's request for NRC retention, as in the Oklahoma situation). And we have done so under circumstances analogous to those here, where (1) an NRC proceeding on a pending application for decommissioning through restricted release was ongoing at the time of the regulatory transfer; (2) the NRC licensee strenuously objected to the transfer of regulatory authority as to its site; and (3) the state was strongly opposed to the licensee's application.[104]

Shieldalloy notes, as an aside, that "other States, such as Ohio, have honored and continued the ongoing NRC licensing process and have brought it to completion after due consideration, thus complying with both the letter and the intent of Criterion 25."[105] In the example that Shieldalloy cites, we transferred another Shieldalloy-owned site with a pending onsite decommissioning application to Ohio upon entry of a section 274 agreement with that state. Ohio eventually approved a restricted-release decommissioning plan with a continuation of the license in the form of a possession-only long-term care license for the site. However, in approving the transfer, we had not made any "arrangements" with Ohio, under Criterion 25 or otherwise, to influence the state's final decision on the license termination application; nor at the time we entered into the agreement with Ohio could we have anticipated what Ohio would ultimately conclude. In contrast to our license termination regime, Ohio's regime disallowed termination of a license through the use of institutional controls, so Ohio theoretically might have disapproved Shieldalloy's request for onsite disposal. In the end, though, Ohio approved onsite disposal. The significant point for our decision today is not that Ohio approved Shieldalloy's onsite disposal request, but that we did not construe Criterion 25 as precluding us from transferring the pending license

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[104] *See Kerr-McGee Chemical Corp.* (West Chicago Rare Earths Facility), CLI-96-2, 43 NRC 13 (1996). *Kerr-McGee* involved a decommissioning application by Kerr-McGee Chemical Corporation for onsite disposal of radioactive uranium mill tailings at its defunct industrial site in West Chicago, Illinois. Both the State of Illinois and the City of West Chicago opposed Kerr-McGee's application for onsite disposal. While Kerr-McGee's application was pending, the Commission, over Kerr-McGee's objections, approved Illinois' proposal to enlarge its existing section 274 agreement authority to include uranium mill tailings. At the time we transferred regulatory authority over mill tailings and Kerr-McGee's site to Illinois, the Licensing Board, after protracted litigation, had approved a license authorizing onsite disposal at the Kerr-McGee site, but Illinois and the City of West Chicago were pursuing a challenge to the license before the Appeal Board. Thus, the NRC proceeding on Kerr-McGee's application for onsite disposal, while not over because of ongoing litigation at NRC, had actually reached the point of NRC approval of an onsite plan at the time of the transfer of authority to Illinois. *See Kerr-McGee,* CLI-96-2, 43 NRC at 15. Here, by contrast, Shieldalloy's proposed plan not only remained under litigation at the Licensing Board, but the proposal also had not yet gained any form of NRC approval — Shieldalloy was still answering NRC Staff inquiries — at the time of the transfer of authority.

[105] Shieldalloy Initial Response at 10 n.16.

termination application to Ohio for the state to continue to process under its own differing regulatory regime.

To recap, we have consistently applied Criterion 25 as a purely administrative criterion for effectuating an orderly transfer of regulatory authority to an agreement state. We do not construe that criterion either as a vehicle for us to retain authority over applications pending at the time of transfer on substantive grounds, or as a vehicle to compel a state to take a particular regulatory approach on pending applications.

b. Protection of Public Health and Safety and ALARA

In an argument it belatedly raised before the court but not as a comment on the New Jersey agreement, Shieldalloy claims that New Jersey's license termination program is not as protective to the public health and safety as our regulations. Shieldalloy maintains that terminating a license under restricted release "would result in doses to the decommissioning workers and the general public that are lower than those that would result from digging up the materials, loading them onto trucks or train cars, shipping them cross-country, and disposing of them in a similar fashion in another state."[106] Shieldalloy also makes a related argument that New Jersey's program is inadequate because it fails to incorporate our ALARA requirement. *Id.* at 15-16. In its remand decision, the court paraphrased Shieldalloy's argument as follows:

> Because of the higher stringency [of New Jersey's license termination regulations], Shieldalloy states that it is prevented from using on-site disposal and will be forced to ship the materials to a facility in Utah. The consequence is that the doses of radiation to the public resulting from removing the radioactive materials from the site and relocating them in Utah will actually be *greater* than the public health and environmental harms that accompany on-site disposal of the materials.[107]

The court did not reach the merits of this argument but said that it presented a "troubling prospect."[108]

Shieldalloy claims that it had "repeatedly maintained, and its analyses have shown," that license termination using onsite disposal would result in lower doses to the public than offsite disposal.[109] Shieldalloy also claims that its "position has not been controverted at any time by the Staff or by New Jersey."[110] These

[106] Shieldalloy Initial Response at 13.
[107] *Shieldalloy,* 624 F.3d at 496 (emphasis in original).
[108] *Id.*
[109] Shieldalloy Initial Response at 13.
[110] *Id.*

statements are inaccurate. As the court recognized, Shieldalloy did not raise what amounts to a "comparative dose" claim in its original comment response.[111] Shieldalloy's "comparative dose" position may have been reflected in its proposed 2005 decommissioning plan, as the court observed, *id.,* but that plan was rejected by the Staff as not being in compliance with our license termination regulations. The NRC Staff's request for additional information (RAI) on Shieldalloy's proposed 2006 decommissioning plan indicates rejection of Shieldalloy's comparison approach and related technical concerns.[112]

Despite the open-ended opportunity we provided in this remand proceeding for Shieldalloy to fully articulate its position on this and other issues, it has presented its "comparative dose" position, and its related argument as to ALARA, in summary and conclusory fashion, leaving us largely to guess at the technical rationale and underlying foundation for its position.[113] This is unfortunate, given the highly complex and technical nature of our license termination regulations. While we endeavor to respond fully to Shieldalloy's comparative dose and related ALARA argument based on our understanding of them, we are mindful of the admonition that "the 'dialogue' between administrative agencies and the public 'is a two-way street.'"[114]

Shieldalloy's position, as we understand it, is as follows: New Jersey's license termination regulations, in effectively precluding Shieldalloy from pursuing restricted release in favor of unrestricted release, would result in higher doses to the public than a restricted-release plan under our license termination regulations. Therefore, according to Shieldalloy, New Jersey's program is not as protective as ours, rendering New Jersey's program "inadequate" under our agreement-state policy. Shieldalloy's position appears to rest on a misguided understanding of our regulatory philosophy on license termination and our ALARA principle. We have not previously had occasion to address these misconceptions, and we do so here.

Embedded in Shieldalloy's position is a notion that our license termination regulations recognize restricted release as a more protective decommissioning option under certain conditions than unrestricted release. Shieldalloy apparently construes our license termination regulations as calling for a licensee to compare

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[111] *Shieldalloy,* 624 F.3d at 496.

[112] *See* Request for Additional Information for Safety Review of Proposed Decommissioning Plan for Shieldalloy Metallurgical Corporation, Newfield, New Jersey (License No. SMB-743), Enclosure, RAI numbers 27, 28, 29, 30 (July 5, 2007) (ADAMS Accession No. ML071640265).

[113] This echoes an observation we made with respect to Shieldalloy's arguments regarding ALARA (though not the comparative dose argument, which was not raised) when it requested a stay of the New Jersey agreement. *See* CLI-10-8, 71 NRC at 154 (noting that Shieldalloy's arguments were "diffuse and difficult to follow.").

[114] *See Northside Sanitary Landfill, Inc. v. Thomas,* 849 F.2d 1516, 1520 (D.C. Cir. 1988) (citation omitted).

doses of the restricted-release and unrestricted-release decommissioning options and to choose the option that affords the lowest dose. This is a fundamentally inaccurate understanding of our license termination requirements and appears to lie at the heart of Shieldalloy's claim that New Jersey's program is not as protective of the public health and safety as our program with respect to the Newfield site.[115]

To be clear, our regulations neither explicitly nor implicitly require a comparison of the levels of protection afforded by the unrestricted and restricted decommissioning options. This is because the levels of protection of unrestricted release and restricted release are simply not susceptible to being compared meaningfully. Each option uses significantly different methods to achieve adequate protection and has significantly different risks and uncertainties associated with it.

Restricted release is far more complex and involves significantly greater uncertainties than offsite disposal. Restricted release relies on the sustained effectiveness of institutional controls over a 1000-year compliance period to restrict future access and use to meet the 25-mrem per year dose requirement.[116] Satisfaction of the 25-mrem per year dose requirement under restricted release also relies on the predicted effectiveness of engineered controls over a 1000-year compliance period. Such engineering controls over this 1000-year period would be depended upon to perform numerous complex functions, including shielding, erosion protection, and limiting infiltration of water that could result in leaching radionuclides out of the restricted area. Monitoring and maintenance over 1000 years also would be necessary to ensure that the engineered controls remain effective. Finally, sufficient long-term funding would be required by an independent third party to further ensure that the controls sustain protection over the 1000-year period.[117]

Unrestricted release requires the removal of contamination onsite to the extent necessary to comply with the dose criteria of 25 mrem per year and transportation of the contaminated material to an isolated and regulated long-term disposal site. Some uncertainties are inherent in these activities, but removing contaminated material from the site and transporting it to a regulated long-term disposal

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[115] As we noted above, this very misunderstanding of our license termination requirements was the subject of a number of requests for additional information by the Staff on Shieldalloy's 2006 decommissioning plan. *See* Request for Additional Information, *supra* note 112, RAI numbers 27, 28, 29, 30.

[116] The nuclear material at Shieldalloy's Newfield site consists of uranium and thorium isotopes, which are "long-lived" radionuclides — i.e., radionuclides with long "half-lives." The predominant thorium isotope (Th-232) has a half-life of 14 billion years and the predominant uranium isotope (U-238) has a half-life of 4.46 billion years.

[117] *See* NUREG-1757, Vol. 1, Rev. 2, § 17.7.1, at 17-64; Vol. 2, Rev. 1, § 3.5.3, at 3-13.

site generally involves well-known and quantifiable handling and associated radiological impacts on workers and the public over a short time period (1 to 2 years). In contrast, dose estimates from contaminated slag left onsite are subject to limitations in understanding the performance of a disposal system and its institutional and engineering controls over the course of the 1000-year compliance period.[118] Restricted-release dose estimates, therefore, inherently involve much greater uncertainty than those from unrestricted release.

Citing its proposed 2009 revised decommissioning plan, Shieldalloy claims that "its analyses have shown . . . that terminating [its] license by [restricted release] . . . would result in doses to the decommissioning workers and the general public that are lower than those that would result from [unrestricted release]."[119] But Shieldalloy's own dose estimates for the Newfield site reflect that it is meaningless to compare the level of protection between unrestricted release and restricted release. Specifically, Shieldalloy's proposed 2009 revised plan calculates an infinitesimally small dose — 0.0000004 mrem per year — when institutional controls and engineered barriers are assumed to remain effective for 1000 years.[120] However, when institutional controls are assumed to fail and the engineered cover is assumed to degrade, Shieldalloy's filing shows that the dose estimate would be far greater, up to a bounding dose of 86 mrem per year at the Newfield site.[121] This dose is well in excess of Shieldalloy's dose estimates for unrestricted release, which ranged from 1 to 25 mrem per year. Thus, while Shieldalloy's estimates purport to show that doses for onsite disposal (assuming fully functioning controls) are lower than those for unrestricted release, its own dose estimates for onsite disposal assuming the uncertainty and potential failure of controls over the long term in actuality show a *higher* dose.

Our license termination rule provides that unrestricted release and restricted release are both available as independent regulatory options that would provide adequate protection to the public health and safety *if* the applicable dose and other criteria are met. Contrary to another apparent Shieldalloy misunderstanding, nothing in our license termination regulations states or implies in any way that restricted-release decommissioning, under any circumstances, is a safer, more

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[118] For example, estimates of engineered cover degradation and slag leach rate and degradation of the slag over time were some of the key uncertainties identified in the Staff's RAI's that questioned the basis for Shieldalloy's long-term dose estimates for the onsite disposal option. *See* Request for Additional Information, *supra* note 112, RAI numbers 5, 17, 22, 23.

[119] Shieldalloy Initial Response at 13.

[120] *See* Letter from Hoy E. Frakes, Shieldalloy, to NRC Document Control Desk, "Shieldalloy Metallurgical Corporation, Source Material License No. SMB-743 Revised Decommissioning Plan for the Newfield Facility, Newfield, New Jersey" (Aug. 28, 2009) (transmitting Decommissioning Plan Revision 1b) (Aug. 28, 2009), § 5.3, at 42-43 (ADAMS Accession No. ML092940358) (package).

[121] *Id.*

protective, or more desirable disposal option than unrestricted release. To the contrary, in view of the inherent complexities and uncertainties associated with restricted release, we explicitly expressed a preference for unrestricted release in adopting our license termination rule. We stated that we "expected licensees to make every reasonable effort to achieve unrestricted use."[122] And, in the context of the Shieldalloy decommissioning proceeding itself, we recently reaffirmed our position that "unrestricted release is the preferable method for terminating radioactive materials licenses."[123] In these circumstances, we cannot say that New Jersey's similar preference for unrestricted release inadequately protects the public health and safety.

Although its submission is hardly clear on this point, Shieldalloy apparently believes that our ALARA principle compels us to compare decommissioning options and to allow a licensee to select the lowest-dose option. It argues that "[New Jersey's] [f]ailure to implement the ALARA standard would allow New Jersey to reject the decommissioning option for the Newfield Facility that would result in the *lowest* doses to the public and the environment . . . [and] [i]nstead, the State would be able to order . . . a decommissioning choice that would result in *higher* radiation doses to workers, the public and the environment, and would not be ALARA."[124] In other words, Shieldalloy appears to understand our ALARA principle as used in our regulations to mean "as low as achievable" as a *comparison* between *achievable* doses, rather than "as low as *reasonably* achievable" "*below* the dose limits."[125] This is a fundamental misconception of our ALARA principle and appears to be the root of Shieldalloy's misunderstanding of our approach to license termination.

As discussed above, our license termination regulations do not incorporate or call for a comparison of doses of restricted-release and unrestricted-release decommissioning options; nor do they imply that the restricted-release option would under any circumstances result in lower doses or be more protective than unrestricted release. Thus, the very premise of Shieldalloy's position on ALARA — that our license termination rule requires a *choice* to be made between a *higher* or *lower* dose option — is erroneous.

Nor does our ALARA principle itself, either as a general regulatory principle or as used in our license termination rule, incorporate or call for any comparative analysis of doses from restricted and unrestricted release. Under our license termination regulations, the ALARA principle has been implemented for two purposes. The first purpose is traditional — to reduce doses from license

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[122] License Termination Rule, 62 Fed. Reg. at 39,069.

[123] *See Shieldalloy Metallurgical Corp.* (Decommissioning of the Newfield, New Jersey Facility), CLI-09-1, 69 NRC 1, 5 (2009).

[124] *See* Shieldalloy Initial Response at 15-16 (emphasis added).

[125] *See* 10 C.F.R. § 20.1003.

termination below the applicable dose criteria to the extent reasonably achievable. This stems from our policy that small doses of radiation below dose limits, while safe and acceptable, may have some associated risk and should be reduced below limits when reasonable. The ALARA principle has also been incorporated into the restricted-use portion of the license termination rule for the purpose of providing a criterion to limit the use of restricted release — effectively, to screen out sites that should be removing contamination to achieve unrestricted use. This purpose is achieved in section 20.1403(a) through the use of a cost-benefit analysis as a regulatory tool to determine initial "eligibility" for restricted release. The eligibility criterion in section 20.1403(a) was intended to support our preference for the unrestricted-release decommissioning option.

While Shieldalloy has not set forth or explained the basis for its apparent position — that our ALARA principle as used in license termination calls for a comparison and choice between achievable doses — perhaps it is alluding to our ALARA-based eligibility criterion for restricted release, a requirement New Jersey did not incorporate in its license termination regulations. But, consistent with our general approach to license termination, no comparison of restricted-release and unrestricted-release doses is involved in our section 20.1403(a) eligibility criterion. The ALARA analysis for restricted-release eligibility purposes does not and was never intended to demonstrate whether one decommissioning option affords greater protection than another. In fact, because an ALARA analysis focuses on dose reductions *below* what we have determined to be necessary for adequate protection of the public health and safety, that analysis does not go to adequate protection at all. A licensee's demonstration of adequate protection is accomplished, instead, through satisfaction of the dose criteria and other conditions for its chosen decommissioning option.

Finally, as used in our license termination rule, the ALARA test does not compare or explicitly analyze any of the uncertainties that affect the level of protection afforded by a particular disposal option. As we discussed above, in the case of restricted release, the uncertainties are numerous and complex.

Having addressed Shieldalloy's various misunderstandings regarding our regulatory approach to license termination and ALARA principle, we may now consider in the proper context Shieldalloy's position that New Jersey's license termination regulations are not as protective as ours. First, and contrary to Shieldalloy's claim,[126] New Jersey, by incorporating by reference our section 20.1101(b) into its regulations, did adopt the ALARA regulatory principle — the principle that doses must be reduced below regulatory limits if reasonably achievable — for

[126] *See* Shieldalloy Initial Response at 15-16.

its entire regulatory program, including license termination.[127] As noted above, New Jersey did not incorporate an ALARA-based criterion for restricted-release eligibility, as we did in section 20.1403(a), but that omission is immaterial to adequacy or compatibility. Again, our use of an ALARA test for restricted-release eligibility was intended to *limit* the use of restricted release in license termination. New Jersey's approach accomplishes this same objective by adopting more stringent criteria for license termination under restricted release than for unrestricted release, as well as more conservative criteria than ours for restricted release as permitted. Our decision, after notice-and-comment rulemaking, to assign license termination a "Category C" level of compatibility, allows New Jersey to choose more conservative criteria than ours.[128]

Moreover, since the ALARA test — either for its traditional purpose or as a tool for determining restricted-release eligibility — does not call for comparing doses of the unrestricted- and restricted-release options or compel the selection of one decommissioning option over another, the ALARA requirement is irrelevant to whether Shieldalloy may pursue restricted release over unrestricted release in New Jersey. Nor are New Jersey's license termination regulations less protective than or incompatible with ours in making the terms of restricted release considerably more difficult than those for unrestricted release. Our regulations likewise heavily favor unrestricted over restricted release. If Shieldalloy has a more difficult time pursuing restricted release in New Jersey than under our regulations, then that is the function of New Jersey's permissibly more stringent regulatory scheme.

Finally and fundamentally, there is simply no evidence in the record suggesting that New Jersey is less committed to safety than the NRC. Indeed, New Jersey seems willing to entertain any safety-based arguments Shiedlalloy can offer. New

[127] In a footnote, Shieldalloy points to a New Jersey comment response on the state's proposed decommissioning rules as purportedly acknowledging that the state did not adopt the ALARA principle as a general regulatory policy. Shieldalloy Initial Response at 15 n.24. In the New Jersey comment response referred to by Shieldalloy, New Jersey references a state environmental statute as not allowing the New Jersey regulator to "include the provision of ALARA in meeting dose criteria." *See id.* We understand that the referenced legislation does not allow the consideration of costs when *setting* remediation standards. *See* Brief for State of New Jersey as Amicus Curiae Supporting Respondents at 16, *Shieldalloy Metallurgical Corp. v. NRC,* 624 F.3d 489 (D.C. Cir. 2010) (No. 09-1268) (ADAMS Accession No. ML11258A160). In view of the state's wholesale incorporation of our ALARA requirement in 10 C.F.R. Part 20, we do not construe New Jersey's comment response to mean, as Shieldalloy does, that the state will preclude the use of the ALARA principle to achieve a level of protection *below* the dose criteria, once such criteria have been established.

[128] As we noted above, under NRC's agreement-state program, the "overall level of protection of public health and safety provided by a State program should be equivalent to, or greater than, the level provided by the NRC program." 1997 Policy Statement, 62 Fed. Reg. at 46,524. An agreement state, in other words, is free to deal with local conditions by establishing standards and procedures going beyond the NRC's. But the NRC's own program, of course, establishes national dose limits and other regulatory procedures that ensure adequate protection of the public health and safety.

Jersey points out that Shieldalloy has been granted a hearing on its request for an exemption from New Jersey's license termination regulations.[129] New Jersey then asserts that "if Shieldalloy can eventually demonstrate that onsite disposal is the safer option, that may be a basis for seeking the exemption to the New Jersey regulations it is currently pursuing."[130]

In sum, we reject Shieldalloy's position that New Jersey's license termination program is less protective than or incompatible with our program.

c. Restricted Release

Shieldalloy claims that New Jersey's program is incompatible with ours because it does not allow termination of materials licenses under restricted release. Shieldalloy asserts that "[n]one of the New Jersey regulations establish license termination subject to restricted conditions as a permissible decommissioning option."[131] It is clear from the face of New Jersey's regulations, however, that New Jersey does permit license termination under restricted use. New Jersey has two restricted-release options that permit license termination under specified soil concentration levels.[132] One option is for "limited restricted use" for sites where only institutional controls are used, and the second option is for "restricted use" for sites where both institutional controls and engineered controls are used.[133] New Jersey's regulations also allow licensees to petition for restricted release using "alternative remediation standards," under which license termination is based on dose modeling instead of soil concentration levels.[134] It simply is not true that New Jersey's rules do not provide for restricted release.

Contradicting its own claim that New Jersey does not allow restricted-release decommissioning, Shieldalloy acknowledges that New Jersey allows licensees to petition to use "alternative remediation standards" for restricted release. In its initial filing, Shieldalloy asserts, without further analysis or explanation, that the availability of license termination subject to restricted release under this provision is "illusory" because it is provided "without specification of the criteria for the granting of such petitions."[135] In its later filing, Shieldalloy admits that New Jersey does specify standards for license termination under its "alternative remediation standards" option but argues that those standards "would effectively prohibit on-site remediation of Shieldalloy's source material" because of New Jersey's

[129] *See* New Jersey Reply at 7.

[130] *Id.*

[131] Shieldalloy Initial Response at 16.

[132] *See* N.J. Admin. Code § 7:28-12.8; 12.9, 12.10.

[133] *See id.* § 7:28-12.3.

[134] *See id.* § 7:28-12.11.

[135] Shieldalloy Initial Response at 16.

"all controls failed" methodology for calculating the dose limit in the event of a failure of institutional and engineered controls.[136]

New Jersey's regulatory program for restricted-release decommissioning requires that doses to members of the public resulting from a simultaneous and complete failure of institutional and engineering controls not exceed 100 mrem per year.[137] This is in contrast to our methodology, which assumes that institutional controls fail immediately and completely while engineered barriers will degrade over time rather than all at once.

Given all of this, it appears that the gravamen of Shieldalloy's complaint is not truly that restricted release is "illusory" or impossible in New Jersey, but that New Jersey's regulations do not permit restricted release under the *same conditions* as our regulations — i.e., conditions allowing Shieldalloy to pursue the same disposal option it was pursing under our regulations. *See, e.g.,* Feb. 11, 2011 filing at 11 ("New Jersey's unrestricted use, limited restricted use, and restricted use standards do not allow consideration of engineered barriers *such as that proposed by Shieldalloy.*") (emphasis added). This boils down to a complaint, then, that New Jersey's license termination regulations, including their dose calculation methodology with respect to failure of controls, are more conservative than ours. In view of our Category C designation for our license termination rule, however, more conservative New Jersey requirements are permissible.[138]

d. Departure from NRC's Regulations

Shieldalloy argues that we cannot find New Jersey's license termination program compatible with ours because it "significantly departs" from our program in ways that we had previously "addressed and rejected" in our license termination rulemaking.[139] In addition to ALARA and restricted release, which we have already discussed, Shieldalloy cites the following so-called "departures" from our regulations: (1) New Jersey's 15-mrem per year dose limit, versus our 25-mrem

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[136] Shieldalloy Reply at 11.

[137] *See* N.J. Admin. Code § 7:28-12.11(e).

[138] Shieldalloy suggests in passing (in a footnote) that regardless of what New Jersey's regulations provide, New Jersey has "unambiguously declared that its regulations do not allow license termination based on onsite remediation." Shieldalloy Initial Response at 16 n.26. Shieldalloy points to an undocumented December 2008 New Jersey communication, and to a December 11, 2009, letter from New Jersey to Shieldalloy. The letter cited by Shieldalloy reflects that New Jersey did not accept Shieldalloy's restricted-use plan because the plan failed to satisfy New Jersey's 100-mrem dose criterion for restricted use under an "all controls failed" scenario and because a long-term control license is required, which the New Jersey regulations do not allow. Thus, New Jersey's rejection of Shieldalloy's proposed plan simply reflects its implementation of a permissibly more conservative regulation.

[139] Shieldalloy Initial Response at 17.

per year dose limit; (2) New Jersey's calculation of doses to the longer of the time of peak dose or 1000 years, versus our calculation limited to the first 1000 years of decommissioning; (3) New Jersey's failure to allow for potential doses over 100 mrem per year, versus our allowance of 500 mrem under certain circumstances; and (4) New Jersey's requirement that radioactively contaminated ground and surface water be remediated in accordance with New Jersey water quality requirements, versus our "all pathways" approach without a separate release standard for water.[140] Shieldalloy asserts that these differences are such that New Jersey's program fails to give effect to the "essential objective" of our regulations and therefore is incompatible with ours.

We disagree. We decided the compatibility issue in the license termination rulemaking, when we found, through our Level C designation, that states are free to impose more stringent requirements than ours.[141] The New Jersey variances cited by Shieldalloy are aspects of the state's regulations that are more stringent than ours on the same technical subject areas. As we have made clear throughout today's decision, our compatibility policy contemplates state variances to account for local needs, desires, and conditions, and explicitly permits more stringent state regulations for license termination. By adopting a lower dose limit and requiring more conservative dose calculation methodologies, New Jersey's approach embodies the "essential objective" of our license termination rule — "to provide specific radiological criteria for the decommissioning of lands and structures . . . to ensure that decommissioning will be carried out without undue impact on public health and safety and the environment."[142]

e. Criterion 23

Shieldalloy claims that New Jersey's license termination regulations are not "fair and impartial" as required by Criteron 23 of our 1981 Policy Statement, because they are "aimed solely at the Newfield site and intended to force the removal of the material stored at the Newfield site."[143] Shieldalloy claims that it is "extremely improbable, if not impossible, for a new facility where source materials are used to be licensed under New Jersey's radiation control rules."[144]

On its face, New Jersey's program incorporates all of the regulatory components specified in Criterion 23, including procedures for public participation,

[140] *Id.*

[141] If Shieldalloy was dissatisfied with the compatibility designation for the license termination rule, it could have sought a change in the designation by filing a petition for rulemaking. *See* 10 C.F.R. § 2.802.

[142] *See* License Termination Rule, 62 Fed. Reg. at 39,058.

[143] Shieldalloy Initial Response at 18.

[144] *Id.*

formulation of rules of general applicability, approving and denying applications for licenses to possess and use radioactive material, and taking disciplinary actions against licensees. All of these requirements, in addition to the license termination regulations, will apply to New Jersey's regulation of the Newfield site.

Moreover, we do not see anything unfair or unlawful in state regulations that may apply to just one licensee in a state at any given time. An agreement state must have a regulatory program in place for *all* of the nuclear material categories and activities that a state wishes to regulate, currently and potentially. In fact, the absence of comprehensive regulations would render a state's program inadequate and incompatible under section 274. Nothing in section 274 or any of our implementing policy statements or guidance documents suggests that there must be more than one licensee or multiple licensees in a nuclear material class or activity before a state may assume regulatory jurisdiction over or adopt regulations governing that class of material or material activity.

Neither do we view a state's regulations as inherently unfair because they may be designed to effectuate a state-desired regulatory outcome. It is the prerogative of a state under the section 274 agreement-state program to decide what local interests, preferences, and needs it wishes to accommodate. Our role under section 274 is to assess whether a state's program adequately protects the public health and safety and whether it is compatible with ours. In the case of New Jersey, we have found the provisions for both restricted release and unrestricted release to be adequate and compatible under our longstanding agreement-state policies.

f. Implementation of New Jersey's Program

Today, we have determined that New Jersey's regulatory program is adequate and compatible as to the Newfield site on a programmatic level. While we assume that an agreement state will conduct its regulatory actions in good faith and consistent with its approved program, a state's application of its regulations may raise issues that can only be addressed if and when they arise. For example, in the case of a state's program that, like New Jersey's, is considerably more stringent than ours but acceptable on its face, it is conceivable that unduly strict application could prove incompatible with our regulatory program. If a regulated entity believes that a state's program, as implemented, is unlawful or contrary to public health and safety, it may raise its agreement-state performance concerns with us. NRC will address agreement-state performance concerns through our Integrated Materials Performance Evaluation Program (IMPEP) process[145] or through an

[145] Our 1997 Policy Statement described the IMPEP as a process "to provide NRC and agreement-state management with systematic, integrated, and reliable evaluations of the strengths and weaknesses *(Continued)*

independent agreement-state performance concern evaluation, depending on the performance concern raised. We retain power under AEA § 274j,[146] to revoke agreements with states and to restore NRC regulatory authority.

Accordingly, Shieldalloy is not without recourse if New Jersey's implementation of its license termination regulations at the Newfield site proves so inflexible or so lax as to diminish public health and safety. Were that to occur, it is within NRC's authority to find New Jersey's program, as applied, inadequate or incompatible. Shieldalloy is free to raise concerns of this kind at any time.

IV. CONCLUSION

For the foregoing reasons, we *reinstate* New Jersey's authority to regulate Shieldalloy's Newfield site.

IT IS SO ORDERED.

For the Commission

ANDREW L. BATES
Acting Secretary of the Commission

Dated at Rockville, Maryland,
this 12th day of October 2011.

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of their respective radiation control programs and identification of areas needing improvement." 1997 Policy Statement, 62 Fed. Reg. at 46,521. Our guidance for implementing this review program is contained in NRC Management Directive 5.6, Integrated Materials Performance Evaluation Program. *See* NRC Website, Office of Federal and State Materials and Environmental Management Programs (Feb. 26, 2004), available at http://nrc-stp.ornl.gov/procedures.html#directives. The first IMPEP review generally occurs approximately 18 months after an agreement is entered into, and every 4 or 5 years thereafter.

[146] 42 U.S.C. § 2021(j) (2011).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Dr. Kaye D. Lathrop
Dr. Craig M. White

In the Matter of **Docket No. 70-7015-ML**
(ASLBP No. 10-899-02-ML-BD01)

AREVA ENRICHMENT SERVICES, LLC
(Eagle Rock Enrichment Facility) **October 7, 2011**

In this 10 C.F.R. Part 70 proceeding regarding the application of AREVA Enrichment Services, LLC (AES) for authorization to possess and use source, byproduct, and special nuclear material to enrich natural uranium by the gas centrifuge process at its planned Bonneville County, Idaho Eagle Rock Enrichment Facility (EREF), the Licensing Board provides its findings and conclusions concerning uncontested National Environmental Policy Act (NEPA)/environmental-related matters, concluding, *inter alia,* that (1) the application and record of the proceeding, including the NRC Staff's environmental impact statement (EIS), contain sufficient information to support license issuance; (2) the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate; and (3) after independently weighing the environmental, economic, technical, and other benefits against the environmental and other costs, and considering reasonable alternatives, the license requested under the AES application at issue in this proceeding should be issued.

ATOMIC ENERGY ACT: SECTIONS 189a, 193, 274c(1)

MANDATORY HEARING: ORIGIN OF REQUIREMENT (URANIUM ENRICHMENT FACILITY)

Atomic Energy Act (AEA) § 274c(1), 42 U.S.C. § 2021(c)(1), gives the NRC a clear statutory mandate to regulate the construction and operation of a uranium enrichment facility. *See* LBP-11-11, 73 NRC 455, 474 (2011). Further, AEA §§ 53 and 63, 42 U.S.C. §§ 2073, 2093, which concern special nuclear material and byproduct material, provide the general statutory basis under which the NRC has adopted the variety of regulations that govern a proposed enrichment facility's construction and operation. Finally, AEA §§ 189a and 193, *id.* §§ 2239a, 2243, provide the statutory footing for the procedural precepts that apply to a uranium enrichment facility licensing action, including the need for (1) the NRC to conduct only a single licensing action and adjudicatory proceeding to authorize the construction and operation of a uranium enrichment facility; and (2) a mandatory hearing regarding the application and the Staff's associated safety and environmental reviews, despite the absence of a petitioner seeking to interpose a challenge to the applicant's request for such a single license.

REGULATIONS: URANIUM ENRICHMENT FACILITY LICENSING

Part 70 of Title 10 of the *Code of Federal Regulations* establishes the basic regulatory framework that governs the licensing of an entity to construct and operate an enrichment facility. Nonetheless, a number of other rules and regulations in 10 C.F.R. Chapter I, including Parts 19, 20, 21, 25, 30, 40, 71, 73, 74, 95, 140, 170, 171, and the agency's NEPA regulations in Part 51, are applicable to licensing a facility to receive, possess, use, transfer, deliver, and process byproduct, source, and special nuclear material in the quantities necessary to conduct the activities contemplated at a uranium enrichment facility. *See* LBP-11-11, 73 NRC at 474-75.

LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY HEARING REVIEW OF STAFF FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (LICENSING BOARD REVIEW OF STAFF FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (LICENSING BOARD MANDATORY HEARING REVIEW OF STAFF FINDINGS)

With regard to a licensing board's responsibilities in the context of a mandatory

hearing, a board is to “conduct a simple ‘sufficiency’ review” rather than a de novo review on both AEA and NEPA issues. *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-17, 62 NRC 5, 39 (2005). Thus, boards “should decide simply whether the safety and environmental record is ‘sufficient’ to support license issuance. In other words, the boards should inquire whether the NRC Staff performed an adequate review and made findings with reasonable support in logic and fact.” *Id.* There is, however, a caveat in that boards are instructed to make independent environmental judgments with respect to certain NEPA findings, though even then they “need not rethink or redo every aspect of the NRC Staff’s environmental findings or undertake their own fact-finding activities.” *Id.* at 44; *see also Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-07-9, 65 NRC 539, 559-60 (2007). The board’s role thus is to “carefully probe [Staff] findings by asking appropriate questions and by requiring supplemental information when necessary,” but “the NRC Staff’s underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient.” *Clinton ESP,* CLI-05-17, 62 NRC at 39-40.

LICENSING BOARD(S): SCOPE OF REVIEW (MANDATORY HEARING REVIEW OF STAFF FINDINGS)

MANDATORY HEARING: SCOPE OF REVIEW (LICENSING BOARD REVIEW OF STAFF FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (LICENSING BOARD MANDATORY HEARING REVIEW OF STAFF FINDINGS)

In a mandatory hearing for the licensing of a uranium enrichment facility, a licensing board “must narrow its inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance.” *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-06-20, 64 NRC 15, 21-22 (2006).

LICENSING BOARD(S): RESPONSIBILITIES (MANDATORY HEARING ENVIRONMENTAL FINDINGS)

MANDATORY HEARING: MATTERS FOR CONSIDERATION (MANDATORY HEARING ENVIRONMENTAL FINDINGS)

RULES OF PRACTICE: SCOPE AND TYPE OF PROCEEDING (MANDATORY HEARING ENVIRONMENTAL FINDINGS)

The NEPA findings associated with a mandatory hearing require the licensing board to (1) determine whether the requirements of section 102(2)(A), (C), and (E) of NEPA and Subpart A of 10 C.F.R. Part 51 have been complied with in the proceeding; (2) independently consider the final balance among conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; and (3) determine, after weighing the environmental, economic, technical, and other benefits against the environmental and other costs, and considering reasonable alternatives, whether a license should be issued, denied, or appropriately conditioned to protect environmental values. *See* Licensing Board Initial Scheduling Order (May 19, 2010), Attach. A, at 9 (unpublished) [hereinafter Initial Scheduling Order]. Additionally, the Commission has directed that if a proceeding is not a contested proceeding, i.e., the proceeding is an uncontested/mandatory hearing rather than one in which a petitioner seeks to challenge the AES application in accord with the procedures specified in 10 C.F.R. Part 2, Subpart C, then in connection with environmental matters the licensing board is to determine whether (1) the application and record of the proceeding contain sufficient information to support license issuance; (2) the Staff's review of the application has been adequate to support findings to be made by the Office of Nuclear Materials Safety and Safeguards (NMSS) Director with respect to whether (a) the application satisfies the standards set forth in the Commission's hearing notice and the applicable standards in 10 C.F.R. Parts 30, 40, and 70, and (b) the requirements of NEPA and the agency's implementing regulations in Part 51 have been met; and (3) the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate. *See* Notice of Receipt of Application for License; Notice of Consideration of Issuance of License; Notice of Hearing and Commission Order and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation; In the Matter of AREVA Enrichment Services, LLC (Eagle Rock Enrichment Facility), 74 Fed. Reg. 38,052, 38,053-54 (July 30, 2009) (CLI-09-15, 70 NRC 1, 7 (2009)); *see also* Initial Scheduling Order, Attach. A, at 9.

NEPA: PURPOSE AND NEED FOR PROPOSED ACTION

As part of its NEPA analysis, the agency must provide information that addresses the purpose and need for the proposed action. *See* 10 C.F.R. Part 51, App. A, § 4.

NEPA: ENVIRONMENTAL IMPACT STATEMENT (PURPOSE AND NEED FOR THE FACILITY)

REGULATORY GUIDANCE: INTERPRETATION AND APPLICATION (NEPA PURPOSE AND NEED ASSESSMENT)

URANIUM ENRICHMENT FACILITY: NEPA REVIEW (PURPOSE AND NEED ASSESSMENT)

Staff materials licensing-related guidance regarding the preparation of the purpose and need analysis in the applicant's environmental report (ER) and the Staff's EIS state that the Applicant and Staff treatment of this subject should explain "why the proposed action is needed," going on to indicate that the discussions should describe

> the underlying need for the proposed action and should not be written merely as a justification of the proposed action, nor to alter the choice of alternatives. . . . Examples of need include a benefit provided if the proposed action is granted or descriptions of the detriment that will be experienced without approval of the proposed action. In short, the need describes what will be accomplished as a result of the proposed action.

Exh. NRC000189, at 5-2, 6-1 (NMSS, NRC, Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, NUREG-1748 (Aug. 2003)).

URANIUM ENRICHMENT FACILITY: NEPA REVIEW (PURPOSE AND NEED ASSESSMENT)

In the context of the agency's NEPA-related review of the need for a uranium enrichment facility, several factors ultimately sustain a finding of "need" for the facility. The first supporting element is the need to ensure the continued availability of diverse, reliable sources of domestic enrichment services to provide low-enriched uranium for domestic power reactors. The importance of this general principle has been recognized in previous licensing proceedings. *See USEC Inc.* (American Centrifuge Plant), LBP-07-6, 65 NRC 429, 473 (2007); *Louisiana*

Energy Services, L.P. (National Enrichment Facility), LBP-05-13, 61 NRC 385, 443, *petition for review denied,* CLI-05-28, 62 NRC 721, 726 (2005).

URANIUM ENRICHMENT FACILITY: NEPA REVIEW (PURPOSE AND NEED ASSESSMENT)

Another factor bolstering the need for a facility is the recognized "margin level" that exists in the existing enrichment market to offset potential supply problems as well as maintain a level of reasonable market competition.

URANIUM ENRICHMENT FACILITY: NEPA REVIEW (PURPOSE AND NEED ASSESSMENT)

Support for the need for a facility also comes from the current status of industry commitments for the proposed facility's enrichment services. Evidence of significant actual utility commitments provides a compelling showing in support of the need for an enrichment facility. *See LES,* LBP-05-13, 61 NRC at 444-45.

PRECONSTRUCTION AUTHORITY: REMEDIATION REQUIREMENTS

As was noted in the *Vogtle ESP* proceeding, *see Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-09-19, 70 NRC 433, 503-04 (2009), in contrast to the regulatory scheme that permits certain "construction" activities to be undertaken at a reactor site pursuant to a limited work authorization so long as a site redress plan is submitted, *see* 10 C.F.R. § 50.10(d), (g), there is no agency requirement that an applicant submit a redress plan relative to preconstruction activities nor, absent state or local requirements, take any remediation action regarding preconstruction activities if it decides not to complete the project or is denied agency authorization to construct and operate the facility.

NEPA: CONSIDERATION OF GREENHOUSE GAS EMISSIONS

At all levels of government, policymakers are attempting to account for and address greenhouse gas (GHG) emissions. At the NRC, the Commission has directed the Staff to consider GHGs in its environmental reviews for major licensing actions. The Commission also directed that in the interest of consistency, for power reactors the Staff review should encompass emissions from the uranium fuel cycle as well as from construction and operation of the reactor facility to

be licensed. *See Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), CLI-09-21, 70 NRC 927, 931 (2009).

NEPA: ENVIRONMENTAL ANALYSIS (HARD LOOK)

Under NEPA, the NRC must assess the environmental impacts of a proposed facility, including those impacts associated with GHG emissions by the proposed facility. *See Lee,* CLI-09-21, 70 NRC at 931. In assessing GHG impacts, the NRC must devote its resources to taking a "hard look" at the issue. *Pa'ina Hawaii, LLC,* CLI-10-18, 72 NRC 56, 74 (2010); *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998). This standard requires the agency to rigorously explore and objectively analyze impacts, so that merely offering "'general statements about "possible" effects and "some risk" do[es] not constitute a "hard look" absent a justification regarding why more definitive information could not be provided.'" *Pa'ina,* CLI-10-18, 72 NRC at 74 (quoting *Blue Mountains Biodiversity Project v. Blackwood,* 161 F.3d 1208, 1213 (9th Cir. 1998)). Taking a hard look "'foster[s] both informed decision-making and informed public participation,'" and thus ensures that the agency does not act upon "incomplete information, only to regret its decision after it is too late to correct." *Claiborne,* CLI-98-3, 47 NRC at 88 (quoting *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 371 (1989)).

NEPA: RULE OF REASON

At the same time, the agency need not undertake an unceasing impacts analysis. Rather, because NEPA is premised on a "rule of reason," the agency need only consider the reasonable alternatives to a proposed action. *See Pa'ina,* CLI-10-18, 72 NRC at 75. As a result, the NRC may decline to examine "remote and speculative risks" or events with "inconsequentially small" probabilities. *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989). In that regard, according to the Council on Environmental Quality (CEQ), the "rule of reason" is "a judicial device to ensure that common sense and reason are not lost in the rubric of regulation." Final Rule: "National Environmental Policy Act Regulations; Incomplete or Unavailable Information," 51 Fed. Reg. 15,618, 15,621 (Apr. 25, 1986).

NEPA: ENVIRONMENTAL IMPACT STATEMENT (CATEGORIZATION OF IMPACTS)

Irrespective of the cause of the impact or the appropriate level of administrative scrutiny, for the purpose of NEPA evaluation NRC regulations categorize impacts

into three types: direct, indirect, and cumulative. *See* 10 C.F.R. § 51.14(b) (adopting various CEQ regulations, including definitions of direct, indirect, and cumulative effects/impacts in 40 C.F.R. §§ 1508.7, 1508.8, 1508.25). Direct impacts are those caused by the action that is the subject of the EIS, and occurring at the same time and place as that action, while indirect impacts are caused by the action at a later time or more distant place, yet are still reasonably foreseeable. *See id.* § 1508.8. In contrast, cumulative impacts are those that "result[ ] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." *Id.* § 1508.7. But regardless of their classification as direct, indirect, or cumulative, impacts that are reasonably foreseeable are to be assessed. *See* 10 C.F.R. Part 51, App. A, § 7.

NEPA: ENVIRONMENTAL IMPACT STATEMENT (CATEGORIZATION OF IMPACTS)

As a tool for assessing the significance of potential impacts, NRC regulations establish a standard scheme. *See, e.g., id.* Part 51, App. B, table B-1 n.3. This protocol was created based on the approach outlined in section 1508.27 of the CEQ regulations, which indicates that agencies should consider both the context and intensity of impacts. *See* 40 C.F.R. § 1508.27. The NRC has established three levels of impacts — SMALL, MODERATE, and LARGE — that are defined as follows:

> SMALL. The environmental effects are not detectable or are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.
>
> MODERATE. The environmental effects are sufficient to noticeably alter but not to destabilize important attributes of the resource.
>
> LARGE. The environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

Exh. NRC000134, at xxxi (1 Office of Federal and State Materials and Environmental Management Programs, NRC, [EIS] for the Proposed [EREF] in Bonneville County, Idaho, NUREG-1945 (Feb. 2011)) [hereinafter FEIS].

NEPA: ENVIRONMENTAL IMPACT STATEMENT (AIR QUALITY IMPACTS)

Under NEPA, the agency must assess the environmental impacts of a proposed

facility. *See* 42 U.S.C. § 4332(2)(C)(i). Following this general NEPA directive to evaluate impacts, the Staff assesses air quality impacts as a matter of course. *See, e.g., USEC Inc.* (American Centrifuge Plant), LBP-07-6, 65 NRC 429, 487-88 (2007). In keeping with its standard impact evaluation protocol, the Staff categorizes these impacts as SMALL, MODERATE, or LARGE.

EPA AUTHORITY: CLEAN AIR ACT STANDARDS

NEPA: NRC RESPONSIBILITIES (ASSESSMENT OF IMPACTS OF AIR POLLUTANTS)

In parallel with the Staff's role under NEPA to assess environmental impacts, the Environmental Protection Agency (EPA) possesses authority under the Clean Air Act to set numerical standards for air pollutants from emission sources. *See* 42 U.S.C. § 7411. EPA's National Ambient Air Quality Standards (NAAQS) set maximum levels for air pollutants in the ambient air deemed to provide protection for human health and welfare. EPA also has granted authority to some states to implement, maintain, and enforce their own EPA-compliant air quality programs through State Ambient Air Quality Standards (SAAQS). *See* 42 U.S.C. § 7410(a)(1). That, however, does not relieve the NRC of its duty under NEPA to assess the environmental impacts of air pollutants associated with a proposed facility, including giving appropriate consideration both to whether any pollutant surpasses the NAAQS and the consequences of that pollutant exceeding the NAAQS.

NEPA: ENVIRONMENTAL IMPACT STATEMENT (RADIOLOGICAL ENVIRONMENTAL AND EFFLUENT MONITORING PROGRAM)

URANIUM ENRICHMENT FACILITY: SAFETY REVIEW (RADIOLOGICAL ENVIRONMENTAL AND EFFLUENT MONITORING PROGRAM)

Under 10 C.F.R. Part 20, App. B, and section 70.59, Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment. Although the question of the sufficiency and adequacy of the applicant's program for radiological effluent monitoring and radiological environmental monitoring would be part of the Staff's AEA/safety-related review of the application and would be addressed in the Staff's safety evaluation report, in the context of the agency's NEPA responsibility to consider the radiological effects of a proposed action and the alternatives available for reducing or avoiding such impacts, *see*

10 C.F.R. § 51.71(d), an applicant's radiological measurements and monitoring program also is subject to scrutiny.

REGULATORY GUIDANCE: INTERPRETATION AND APPLICATION (RADIOLOGICAL ENVIRONMENTAL AND EFFLUENT MONITORING PROGRAM)

Two Staff guidance documents set forth the information that should be provided in the ER and the EIS regarding a radiological monitoring program and monitoring program acceptance criteria, *see* Exh. NRC000189, at 5-26, 6-29 to -30 (NMSS, NRC, Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, NUREG-1748 (Aug. 2003)) [hereinafter Staff Environmental Review Guidance]; Exh. NRC000031, at 9-12 to -15 (NMSS, NRC, [SRP] for the Review of a License Application for a Fuel Cycle Facility, NUREG-1520 (Mar. 2002)); while two other Staff guidance documents outline what the Staff believes are acceptable methods for designing a radiological monitoring program and submitting required semiannual reports specifying principal radionuclide releases to unrestricted areas for the purpose of estimating maximum potential annual public doses from such releases, *see* Exh. NRC000208, at 6-16 (Office of Nuclear Regulatory Research (RES), NRC, Quality Assurance for Radiological Monitoring Program, Regulatory Guide [(RG)] 4.15 (rev. 2 July 2007)); Exh. NRC000209, at 3-7, A-1 (RES, NRC, Monitoring and Reporting Radioactive Materials in Liquid and Gaseous Effluents from Nuclear Fuel Cycle Facilities, RG 4.16 (rev. 2 Dec. 2010)).

NEPA: HISTORIC/CULTURAL RESOURCE ASSESSMENT

The National Historic Preservation Act of 1966 (NHPA), 16 U.S.C. § 470, requires that all adverse effects to any National Register of Historic Places (NRHP)-eligible historic or cultural resource be considered during any federal undertaking, such as an NRC licensing action for a proposed uranium enrichment facility. NRC fulfills its responsibilities under the NHPA in the context of the historical and cultural resources impact assessment that is part of its NEPA environmental review. *See* Staff Environmental Review Guidance at 1-7 to -8. An historical/cultural resource is considered eligible for listing on the NRHP if it meets one or more of the following criteria: (1) association with an historic person; (2) association with an historic event; (3) representation of the work of a master; or (4) potential to provide information on the history or prehistory of the United States. *See* 36 C.F.R. § 60.4. Further, under NHPA § 106, the area of potential effect (APE) of the federal undertaking must be designated, e.g., the area directly affected by preconstruction/construction of a proposed facility, and the

lead federal agency associated with the undertaking must conduct a consultation with the State Historic Preservation Officer regarding the presence and protection of historic and cultural resources in the designated APE, as well as any federally recognized Native American groups with an ancestral interest in the property, to determine if resources important to the tribe are present. *See* FEIS at 4-5.

TECHNICAL ISSUE(S) DISCUSSED

The following technical issues are discussed: AERMOD Model; Albedo; Bowen Ratio; Construction Inspection Program; Effluent Monitoring Program; Enriched Uranium Availability; Fugitive Dust; Greenhouse Gas Emissions; Historic/Cultural Resource Monitoring and Preservation; Hydrate Plug; Need for Uranium Enrichment Services; Particulate Matter; Planetary Boundary Layer; Preconstruction Activities; Preconstruction/Construction Air Quality Impacts; Radiological Environmental Monitoring Program; Seismic Avoidance Area; Site Remediation; Site Selection Criteria (Winter Weather- and Earthquake-related); Surface Roughness; Visual Impacts.

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ACRONYMS AND ABBREVIATIONS

ACP	American Centrifuge Plant
ACHP	Advisory Committee on Historic Preservation
AEA	Atomic Energy Act of 1954
AERMOD	American Meteorological Society and EPA Regulatory Model
AES	AREVA Enrichment Services, LLC
AMS	American Meteorological Society
ANL	Argonne National Laboratory
APE	area of potential effect
B.A.	Bachelor of Arts
B.S.	Bachelor of Science
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2-equivalent
COL	combined license
COLA	combined license application
CV	curriculum vitae
DC	design certification
DOE	Department of Energy
DU	depleted uranium
DUF_6	depleted uranium hexafluoride
EIA	United States Energy Information Administration
EIS	environmental impact statement
EMP	effluent monitoring program
EP	emergency plan
EPA	Environmental Protection Agency
ER	environmental report
EREF	Eagle Rock Enrichment Facility
ERI	Energy Resources International, Inc.
ESRP	Eastern Snake River Plain

FCSS	Division of Fuel Cycle Safety and Safeguards
FEIS	final environmental impact statement
FNMCP	fundamental nuclear material control plan
FSME	Office of Federal and State Materials and Environmental Management Programs
GEH	General Electric-Hitachi
GHG	greenhouse gas
GLEF	global laser enrichment facility
GNEP	Global Nuclear Energy Partnership
GWh	gigawatt hour
HEU	high-enriched uranium
HF	hydrogen fluoride
IGE	interested governmental entity
IM	inspection manual
IMC	inspection manual chapter
INL	Idaho National Laboratory
ISAS	integrated safety analysis summary
ISC3	Industrial Source Complex Model
kWh	kilowatt hour
LES	Louisiana Energy Services, LLC
LEU	low-enriched uranium
LOC	letter of credit
MDC	minimum detectable concentration
MFC	Materials and Fuels Complex
MOA	memorandum of agreement
m/s	meters per second
M.S.	Master of Science
MT	metric ton
MWh	megawatt hour
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NCS	nuclear criticality safety
NEF	National Enrichment Facility
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NMSS	Office of Nuclear Materials Safety and Safeguards
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NRC	Nuclear Regulatory Commission

NRHP	National Register of Historic Places
NWPP	Northwest Power Pool
NWS	National Weather Service
ORR	operational readiness review
PBL	planetary boundary layer
PGDP	Paducah Gaseous Diffusion Plant
PID	partial initial decision
PM	particulate matter
PSP	physical security plan
REMP	radiological environmental monitoring program
RES	Office of Nuclear Regulatory Research
RG	Regulatory Guide
SAAQS	State Ambient Air Quality Standards
SAR	safety analysis report
SBM	separations building modules
SER	safety evaluation report
SHPO	State Historical Preservation Office
SO_2	sulfur dioxide
SNM	special nuclear material
SPPP	standard practice procedures plan
SPQ	Statement of Professional Qualifications
SWU	separative work units
TLD	thermoluminescent dosimeter
U	uranium
UF_4	uranium tetrafluoride
UF_6	uranium hexafluoride
USEC	United States Enrichment Corporation
USGS	United States Geological Survey
WSA	Wilderness Study Area
$\mu g/m^3$	micrograms per cubic meter
µm	micrometer

SECOND AND FINAL PARTIAL INITIAL DECISION
(Uncontested/Mandatory Hearing on Environmental Matters)

I. INTRODUCTION

1.1 Pursuant to the Commission's July 23, 2009 hearing notice, *see* Notice of Receipt of Application for License; Notice of Consideration of Issuance of License; Notice of Hearing and Commission Order and Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation; In the Matter of AREVA Enrichment Services, LLC (Eagle Rock Enrichment Facility), 74 Fed. Reg. 38,052 (July 30, 2009) (CLI-09-15, 70 NRC 1 (2009)), on July 12-13, 2011, this Licensing Board conducted an evidentiary hearing in Idaho Falls, Idaho. That hearing was held in accordance with the requirements of the Atomic Energy Act of 1954 (AEA), 42 U.S.C. §§ 2011-2297, and 10 C.F.R. Part 70, which mandate that a hearing is required regarding the pending application of AREVA Enrichment Services, LLC (AES) for a license to possess and use source, byproduct, and special nuclear material to enrich natural uranium at a proposed facility, designated as the Eagle Rock Enrichment Facility (EREF), to be constructed and operated in Bonneville County, Idaho.

1.2 This final partial initial decision (PID) provides the Board's findings and conclusions regarding the uncontested matters associated with this proceeding that arise under the provisions of the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321-4370, i.e., those matters affecting the quality of the human environment. This includes the results of the Board's review of the relevant portions of the record of this proceeding, its written inquiries to AES and the Nuclear Regulatory Commission (NRC) Staff regarding several issues, and the information provided during the subject matter presentations at the July 2011 mandatory hearing evidentiary session. In this decision we thus address the NEPA/environmental-related matters associated with the uncontested portion of this proceeding and determine that (1) the Staff's review pursuant to 10 C.F.R. Part 51, as embodied in its final environmental impact statement (FEIS), has been adequate to support the findings to be made by the Director of the Office of Nuclear Materials Safety and Safeguards (NMSS), with respect to whether the requirements of NEPA and the agency's implementing Part 51 regulations have been met; (2) the requirements of NEPA § 102(2)(A), (C), and (E), 42 U.S.C. § 4332(2)(A), (C), (E), and Subpart A of 10 C.F.R. Part 51 have been complied with in the proceeding; (3) after independently considering the final balance among conflicting factors contained in the record of the proceeding, the appropriate action to be taken is issuance of the requested license; and (4) after weighing the environmental, economic, technical, and other benefits against

the environmental and other costs, and considering reasonable alternatives, the requested license should be issued.

II. PROCEDURAL BACKGROUND

2.1 On April 8, 2011, the Board issued LBP-11-11, 73 NRC 455 (2011), the first of two PIDs in this proceeding.[1] In that PID the Board provided its findings and conclusions regarding uncontested matters arising under the provisions of the AEA, i.e., those matters relating to the public health and safety and the common defense and security (as opposed to environmental matters arising under the provisions of NEPA). 73 NRC at 468. Those findings and conclusions included the Board's review of the relevant portions of the record of this proceeding, its written inquiries of AES and the Staff regarding a number of issues, and the information provided during the subject matter presentations at a January 2011 mandatory hearing evidentiary session. *Id.* at 477, 512-13, 514, 525-26. With the exception of the then-unresolved decommissioning funding financial assurance issue that was pending Commission consideration of a Board-certified question, *see* Licensing Board Memorandum (Certifying Question to the Commission Regarding Decommissioning Financial Assurance) (Feb. 18, 2011) (unpublished), the Board determined that (1) the AES application, including its safety analysis report (SAR) and the associated integrated safety analysis summary (ISAS), emergency plan (EP), physical security plan (PSP), fundamental nuclear material control plan (FNMCP), and standard practice procedures plan (SPPP), along with the record of the proceeding, contained sufficient information to support license issuance; (2) the Staff's review of the application, as embodied in its safety evaluation report (SER), had been adequate to support the findings to be made by the NMSS Director, with respect to whether the AES application met the applicable standards of Parts 30, 40, and 70; and (3) based on conclusions regarding (a) the sufficiency of the AES application and record of the proceeding, and (b) the adequacy of the Staff's review of the AES application, the issuance of a permit for construction and operation of the EREF, as modified by the license condition regarding the educational and experience qualifications of the facility's nuclear criticality safety (NCS) manager would not be inimical to the common defense and security or the health and safety of the public. LBP-11-11, 73 NRC at 526.

2.2 With the Staff's release of its FEIS in mid-February 2011, *see* Notice of Availability of [FEIS] for the [AES] Proposed [EREF] in Bonneville County, ID, 76 Fed. Reg. 9054 (Feb. 16, 2011), immediately following the issuance of

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[1] To avoid repetition, this decision will not recite this proceeding's entire procedural history prior to the issuance of its first PID. For such an account, see LBP-11-11, 73 NRC at 469-74.

its AEA/safety-related PID, the Board turned to consideration of environmental matters arising under the provisions of NEPA.[2] As with its AEA/safety-related review, *see* LBP-11-11, 73 NRC at 472 & n.7, beginning on April 15, 2011, the Board provided a series of issuances posing questions to both AES and the Staff regarding NEPA/environmental-related matters.[3] AES and/or the Staff filed written responses to the Board's questions on May 2, 9, 27, and June 17, 2011.[4]

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[2] As it had done relative to AEA/safety-related portion of the proceeding, *see* LBP-11-11, 73 NRC at 471 n.3, the Board provided interested governmental entities (IGEs) with an opportunity to participate in the NEPA/environmental-related portion of this uncontested hearing. On February 24, 2011, the Board issued a notice declaring IGEs could take part in the NEPA/environmental-related portion of the mandatory hearing by filing a statement of any issues or questions about which they wished the Board to give particular attention, which could be accompanied by any supporting documentation that the governmental entity saw fit to provide. *See* Atomic Safety and Licensing Board; AREVA Enrichment Services, LLC (Eagle Rock Enrichment Facility); Notice of Opportunity to Participate in Uncontested/Mandatory Hearing; Procedures for Participation by Interested Governmental Entities Regarding Environmental Portion of Enrichment Facility Licensing Proceeding, 76 Fed. Reg. 11,523, 11,523 (Mar. 2, 2011). The notice also indicated that, after reviewing any submitted material, the Board might request that one or more particular governmental entities send representatives to the hearing to participate as the Board deemed appropriate, including answering Board questions and/or making a statement for the purpose of assisting the Board's exploration of one or more of the issues raised by the governmental entity in the prehearing filings. *See id.* As was the case in the AEA/safety-related portion of the proceeding, however, there were no filings by State, local, or Native American tribal governments in response to this Board notice.

[3] *See* Licensing Board Memorandum and Order (Initial Board Questions Regarding Environmental-Related Matters and Associated Administrative Directives) (Apr. 15, 2011) app. A (unpublished) [hereinafter Initial Board Environmental Questions]; Licensing Board Memorandum and Order (Second Set of Board Questions Regarding Environmental-Related Matters) (Apr. 22, 2011) app. A (unpublished) [hereinafter Board's Second Environmental Questions]; Licensing Board Memorandum and Order (Third Set of Board Questions Regarding Environmental-Related Matters) (May 12, 2011) app. A (unpublished) [hereinafter Board's Third Environmental Questions]; Licensing Board Memorandum and Order (Providing Presentation Topics, Additional Questions, and Administrative Directives Associated with Mandatory Hearing on Environmental Matters) (June 2, 2011) at 6 (unpublished) [hereinafter Board Presentation Topics and Administrative Directives].

[4] *See* Exh. NRC000136 (NRC Staff Response to the Licensing Board's Initial Questions Regarding Environmental Matters) [hereinafter Staff Initial Environmental Questions Response]; Exh. AES000064 (AES Response to Initial Environmental Questions) [hereinafter AES Initial Environmental Questions Response]; Exh. NRC000170 (NRC Staff Response to the Licensing Board's Second Set of Questions Regarding Environmental Matters) [hereinafter Staff Second Environmental Questions Response]; Exh. AES000079 (AES Response to Second Set of Environmental Questions) [hereinafter AES Second Environmental Questions Response]; Exh. NRC000176 (NRC Staff Response to the Licensing Board's Third Set of Questions Regarding Environmental Matters) [hereinafter Staff Third Environmental Questions Response]; Exh. AES000095 (AES Response to Third Set of Environmental Questions) [hereinafter AES Third Environmental Questions Response]; Exh. NRC000184 (NRC Staff Response to Supplemental Board Question Regarding Environmental Question 23) [hereinafter Staff Fourth Environmental Questions Response]; Exh. AES000099 (AES Response to Fourth Set of Environmental Questions) [hereinafter AES Fourth Environmental Questions Response].

(Continued)

Additionally, based in large part on the parties' answers to the Board's May 2011 questions, in a June 2, 2011 memorandum and order, the Board outlined the presentation topics for the NEPA/environmental-related portion of the mandatory hearing. *See* Board Presentation Topics and Administrative Directives at 2-6.

2.3 In accordance with the Board's June 2, 2011 updated general schedule order, its June 2 issuance providing administrative directives for the environmental portion of the mandatory hearing, and its June 2 hearing notice,[5] the Board held an evidentiary hearing on uncontested environmental topics on July 12-13, 2011, in Idaho Falls, Idaho. At the hearing, witnesses for AES and the Staff provided presentations on the following topics:

1. Purpose and Need for the Proposed Action
2. "Preconstruction" Activities
3. Greenhouse Gas Impacts of Facility's Production Power Consumption
4. Preconstruction and Construction Air Quality Impacts
5. Effluent and Radiological Environmental Monitoring Programs[6]

In connection with the exhibit citations that are included in the paragraph above, as admitted into the record of this proceeding at the July 2011 evidentiary hearing and reflected in the agency's ADAMS-associated electronic hearing docket, the official exhibit number for each evidentiary item contains a three-alpha character party identifier (i.e., AES, NRC); followed by six alpha and/or numeric characters designed to reflect its number and whether it was revised subsequent to its original submission as a prefiled exhibit (e.g., evidentiary exhibit AESR20031 admitted at the January 2011 hearing on AEA/safety-related matters is the second revised version of prefiled exhibit AES000031); followed by a two-character alpha or numeric identifier that will be employed in this case to indicate that the exhibit was utilized in the mandatory/uncontested portion of this proceeding (i.e., MA); followed by the designation BD01, which indicates that this Licensing Board (i.e., BD01) was involved in its identification and/or admission. Accordingly, the official designation for the Staff's response to the Board's initial set of environmental questions referenced above is NRC000136-MA-BD01. For the sake of simplicity, however, we will refer to all exhibits admitted in the uncontested portion of this proceeding by their initial nine-character designation only.

[5] *See* Licensing Board Memorandum and Order (Updated General Schedule) (June 2, 2011) (unpublished); Board Presentation Topics and Administrative Directive; In the Matter of Areva Enrichment Services, LLC (Eagle Rock Enrichment Facility); Notice of Hearing (Notice of Evidentiary Hearing and Opportunity to Provide Oral and Written Limited Appearance Statements), 76 Fed. Reg. 34,103 (June 10, 2011) [hereinafter Hearing Notice].

[6] Although the Board designated this topic as "Radiological Effluent Monitoring Program (REMP)," *see* Board Presentation Topics and Administrative Directives at 5, the Staff indicated that (1) the acronym "REMP" stands for "Radiological Environmental Monitoring Program," *see* Exh. NRC000207, at 3 (NRC Staff Presentation Topic 5, Radiological Effluent Monitoring Program (REMP)) [hereinafter Staff Effluent/Environmental Monitoring Presentation]; and (2) two monitoring programs were actually pertinent to the Board's presentation request, the REMP and the effluent

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6. Historic/Cultural Resources Memorandum of Agreement and Associated Mitigation Measures

2.4 Presentation materials, in the form of slide presentations and supporting documents, were provided to the Board beforehand and admitted as exhibits during the proceeding. *See* Board Presentation Topics and Administrative Directives at 7, 9; Tr. at 366-81. The Board asked questions of the parties' witnesses during the presentations and afforded the witnesses of each party the opportunity to comment upon the responses of the other party's witnesses. *See* Board Presentation Topics Order at 7-9. In accordance with 10 C.F.R. § 2.315(a), *see* Hearing Notice at 1-2, 76 Fed. Reg. at 34,104, the Board also entertained oral and written limited appearance statements from members of the public in connection with this proceeding. *See, e.g.,* Limited Appearance Session Tr. at 1-59 (July 11, 2011); E-Mail from Liz Woodruff, Snake River Alliance, to Administrative Judge Paul Bollwerk and Jon Eser, Law Clerk, Atomic Safety and Licensing Board Panel (July 27, 2011; 6:29 p.m. ET) (ADAMS Accession No. ML112093371).

2.5 Following the July 12-13 evidentiary hearing, in an August 2, 2011 memorandum and order, the Board adopted certain corrections to the hearing transcript, admitted two additional Staff exhibits that revised a portion of its presentation materials relating to the matter of greenhouse gas impacts, and closed the evidentiary record of this mandatory hearing proceeding. *See* Licensing Board Memorandum and Order (Adopting Transcript Corrections; Admitting Additional NRC Staff Exhibits; Closing the Evidentiary Record of Mandatory Hearing Proceeding) (Aug. 2, 2011) at 2-3, app. A (unpublished).

2.6 Thereafter, pursuant to the Board's October 7, 2010 memorandum and order, *see* Initial General Schedule app. A, at 2, AES and the Staff filed proposed findings of fact and conclusions of law regarding the NEPA/environmental-related portion of this mandatory hearing proceeding on August 12, 2011, *see* Applicant's Proposed Findings of Fact and Conclusions of Law Concerning Uncontested Environmental Issues (Aug. 12, 2011) [hereinafter AES Proposed Environmental Findings]; NRC Staff's Proposed Findings of Fact and Conclusions of Law Concerning Mandatory Hearing on Environmental Matters (Aug. 12, 2011) [hereinafter Staff Proposed Environmental Findings].

2.7 Finally, regarding the then-pending AEA/safety-related financial assurance matter that was referenced above, *see supra* p. 514, in CLI-11-4, 74 NRC 1 (2011), the Commission responded to the February 2011 Licensing Board certified question regarding the showing required of applicant AES to establish the sufficiency of the letter of credit (LOC) that AES has chosen as its surety

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monitoring program (EMP), *see id.* at 3, 7; *see also* Tr. at 578 (Fischer Test.). As a consequence, in this decision the Board will employ the designation set forth above to more accurately mirror the scope of the Staff's presentation.

method under 10 C.F.R. §§ 30.35(f)(2), 40.36(e)(2), and 70.25(f)(2), to establish AES's decommissioning financial assurance. In granting review of the certified question and addressing that matter, the Commission determined that the AES commitment to use an LOC issued by a financial institution whose operations are regulated and examined by a federal or state agency complies with the applicable regulatory requirements. *See* CLI-11-4, 74 NRC at 10. In doing so, however, the Commission also directed the attention of the Board and the parties to a related issue concerning the timing of the submission of any AES LOC. Specifically, the Commission suggested that while a Staff authorization permitting AES to defer execution of any final LOCs until after a license is issued but before AES receipt of licensed material might be problematic because 10 C.F.R. § 70.25(b)(2) — the provision referenced in the Staff's SER discussion regarding AES post-license issuance surety submissions — is not by its terms applicable to the AES application, such a post-licensing LOC submission by AES might have been within the scope of the Staff's exemption, thereby warranting additional Board and party input on the matter. *See id.* at 9-10.

2.8 After obtaining Staff and AES comments on the matter at the close of the environmental portion of the mandatory hearing, *see* Tr. at 646-55, in a July 26, 2011 issuance the Board concluded that the Staff's granting of the decommissioning financial assurance exemption and an associated license condition requiring AES to submit (1) final copies of its proposed financial instruments for Staff review after a license is issued but no later than 6 months prior to (a) the planned date for AES receipt of nuclear material for testing at the Centrifuge Assembly Building, and (b) the planned dates for obtaining feed material for initial production at each of the four planned Separations Buildings Modules (SBM); and (2) final executed copies of the Staff-reviewed financial assurance instruments to NRC at least 21 days prior to receipt of test material or receipt of feed material for initial production in an SBM, were supported in logic and fact so as to allow, at the appropriate juncture, the issuance of a license permitting the construction and operation of the EREF. *See* Licensing Board Memorandum and Order (Scope of Decommissioning Financial Assurance Exemption) (July 26, 2011) at 4-5 (unpublished).

III. APPLICABLE LEGAL STANDARDS

A. General Legal Standards

3.1 As was noted in the Board's AEA/safety-related PID, *see* LBP-11-11, 73 NRC at 474, AEA § 274c(1), 42 U.S.C. § 2021(c)(1), gives the agency clear statutory authority to regulate the construction and operation of a uranium enrichment facility like the EREF. Further, AEA §§ 53 and 63, 42 U.S.C. §§ 2073, 2093, which concern special nuclear material and byproduct material, provide

the general statutory basis under which the agency has adopted the variety of regulations that would govern the proposed EREF's construction and operation. Finally, AEA §§ 189a and 193, *id.* §§ 2239a, 2243, provide the statutory footing for the procedural precepts that apply to the uranium enrichment facility licensing action now before the Board, including the need for (1) the agency to conduct only a single licensing action and adjudicatory proceeding to authorize the construction and operation of the EREF; and (2) a mandatory hearing regarding the AES application and the Staff's associated safety and environmental reviews, despite the absence of a petitioner seeking to interpose a challenge to the AES request for such a single license for the EREF.

3.2 Part 70 of Title 10 of the *Code of Federal Regulations* establishes the basic regulatory framework that governs the licensing of an entity such as AES to construct and operate an enrichment facility. Nonetheless, as the Board also observed in its AEA/safety-related PID, a number of other rules and regulations in 10 C.F.R. Chapter I, including Parts 19, 20, 21, 25, 30, 40, 71, 73, 74, 95, 140, 170, 171, and most importantly for our purpose here, the agency's NEPA regulations in Part 51, are applicable to licensing a facility to receive, possess, use, transfer, deliver, and process byproduct, source, and special nuclear material in the quantities necessary to conduct the activities contemplated at the EREF. *See* LBP-11-11, 73 NRC at 474-75.

B. Scope of Licensing Board Review

3.3 With regard to a licensing board's responsibilities in this context, a board is to "conduct a simple 'sufficiency' review" rather than a de novo review on both AEA and NEPA issues. *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-17, 62 NRC 5, 39 (2005). Thus, boards "should decide simply whether the safety and environmental record is 'sufficient' to support license issuance. In other words, the boards should inquire whether the NRC Staff performed an adequate review and made findings with reasonable support in logic and fact." *Id.* There is, however, a caveat in that boards are instructed to make independent environmental judgments with respect to certain NEPA findings, though even then they "need not rethink or redo every aspect of the NRC Staff's environmental findings or undertake their own fact-finding activities." *Id.* at 44; *see also Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-07-9, 65 NRC 539, 559-60 (2007). The board's role thus is to "carefully probe [Staff] findings by asking appropriate questions and by requiring supplemental information when necessary," but "the NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient." *Clinton ESP,* CLI-05-17, 62 NRC at 39-40.

3.4 Additionally, in a mandatory hearing, a licensing board "must narrow its

inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance." *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-06-20, 64 NRC 15, 21-22 (2006).

C. Required Board Environmental Findings

3.5 In the initial July 2009 hearing notice for this proceeding, the Commission outlined the legal and factual environmental matters the presiding officer would be responsible for considering in conducting the adjudicatory proceeding relating to the AES application to construct and operate the EREF. *See* 74 Fed. Reg. at 38,053-54 (CLI-09-15, 70 NRC at 7). In that regard, as was noted in the Board's initial scheduling order, these findings require the Board to (1) determine whether the requirements of section 102(2)(A), (C), and (E) of NEPA and Subpart A of 10 C.F.R. Part 51 have been complied with in the proceeding; (2) independently consider the final balance among conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; and (3) determine, after weighing the environmental, economic, technical, and other benefits against the environmental and other costs, and considering reasonable alternatives, whether a license should be issued, denied, or appropriately conditioned to protect environmental values. *See* Licensing Board Initial Scheduling Order (May 19, 2010) attach. A, at 9 (unpublished) [hereinafter Initial Scheduling Order]. Additionally, the Commission directed that if the proceeding is not a contested proceeding, i.e., the proceeding is an uncontested/mandatory hearing rather than one in which a petitioner seeks to challenge the AES application in accord with the procedures specified in 10 C.F.R. Part 2, Subpart C, then in connection with environmental matters the licensing board is to determine whether (1) the application and record of the proceeding contain sufficient information to support license issuance; (2) the Staff's review of the application has been adequate to support findings to be made by the NMSS Director with respect to whether (a) the application satisfies the standards set forth in the Commission's hearing notice and the applicable standards in 10 C.F.R. Parts 30, 40, and 70, and (b) the requirements of NEPA and the agency's implementing regulations in Part 51 have been met; and (3) the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate. *See* 74 Fed. Reg. at 38,053-54 (CLI-09-15, 70 NRC at 7); *see also* Initial Scheduling Order attach. A, at 9.

3.6 Against the backdrop of these governing statutory and regulatory standards, and with the Commission's directives regarding the Board's responsibility to make environmental-related findings in mind, we turn to our consideration to the issues identified by the Board and the information provided by the parties.

IV. FACTUAL FINDINGS AND LEGAL CONCLUSIONS

A. Evidentiary Hearing Issues

4.1 In setting forth the Board's determinations relative to the mandatory hearing portion of this Part 70 licensing proceeding, we begin with the subject matter of the various presentations that were made by AES and the Staff in response to the Board's requests for additional information on those six particular items.

1. Purpose and Need for the Proposed Action

a. Introduction

4.2 As part of its NEPA analysis, the agency must provide information that addresses the purpose and need for the proposed action, in this case, the need for the EREF and the enriched uranium it would produce. *See* 10 C.F.R. Part 51, App. A, § 4. This presentation topic regarding the purpose and need for the EREF arose from the Staff's response to the Board's environmental question 3 regarding the impact, if any, of the March 2011 earthquake and tsunami and the resulting events at the Fukushima Dai-ichi facility relative to the FEIS purpose and need analysis for the EREF. As submitted, the Staff's purpose and need critique relies upon an anticipated increase in the number of newly licensed nuclear power plants in the United States beginning in 2011. *See* Initial Board Environmental Questions App. A, at 1. In its May 2, 2011 response, the Staff indicated:

> The aftermath of recent events at the Fukushima Daiichi facility has no impact on the Staff's assumptions in its purpose and need analysis. These assumptions are based upon the number of new reactor combined license applications (COLAs) that the Staff has received (NRC000134 at 1-5). To date, no combined license applicant has withdrawn its application or sought suspension of the Staff's review thereof in response to the Fukushima events. Thus, the Staff's analysis remains unchanged.

Staff Initial Environmental Questions Response at 2-3.

4.2a Admittedly, assessing in the near term the impacts of the Fukushima event on the long-term need for enrichment services is a potentially daunting endeavor. But to conclude that nothing has changed post-Fukushima does not appear realistic. Notwithstanding the likely continued growth of nuclear power in countries such as China, Russia, India, and South Korea, recent events, including the announced intention of the Japanese, Swiss, and German governments to lower or eliminate their reliance on nuclear power as a portion of their domestic energy production, the Italian referendum that prohibits the reintroduction of nuclear power facilities into that country, and questions in this country regarding

the pace of new reactor construction, as is apparent from the pre-Fukushima suspended status of combined license (COL) applications for facilities such as Callaway, River Bend, Grand Gulf, and Nine Mile Point, as well as questions that have been raised post-Fukushima regarding the development schedules for facilities such as South Texas and Bellefonte, suggest that there is a need to revisit the Staff's pre-Fukushima purpose and need assessment for the EREF. As a consequence, intended in the context of this uncontested hearing as a "stress test" regarding the purpose and need for the facility, the Board requested from the parties a presentation

> addressing how the need for the EREF fits into the larger picture of the need for future domestic and non-domestic uranium enrichment capacity, which should include a discussion/analysis based on:
>
> a. The current status of the existing and potential future sources of uranium enrichment services discussed in the AES ER and/or the Staff's FEIS; and
>
> b. Forecasts of installed nuclear generating capacity (units added net of retirements) that employ estimates of domestic and non-domestic new nuclear power plant generating capacity based on assumptions about such capacity that, relative to the capacity figures utilized in the AES ER for the reference and high growth forecasts of installed nuclear capacity by 2020 and 2030, are below the increases in installed capacity forecast in the AES ER by fifty percent for domestic capacity and twenty-five percent for non-domestic capacity.

Board Presentation Topics and Administrative Directives at 2-3.

b. Witnesses and Evidence Presented

4.3 As the lead party for this presentation topic, AES provided two witnesses to discuss its analysis of the need for the facility under the Board's "stress test" scenarios. In conjunction with their prefiled slide presentations, which were admitted as exhibits, they provided oral testimony at the evidentiary hearing. *See* Tr. at 389-461; Exh. AES000102 (ASLB Presentation Topic #1, Purpose & Need, AES Introduction) [hereinafter AES Purpose and Need Presentation A]; Exh. AES000103 (ASLB Presentation Topic #1, Purpose and Need for the Proposed Action) [hereinafter AES Purpose and Need Presentation B]. The Staff also made two witnesses available to answer questions relating to this topic.

(i) AES WITNESSES

4.4 Sam Shakir, who is AES president and chief executive officer, testified previously in the AEA safety-related portion of this mandatory hearing and his

qualifications and experience were outlined in that decision. *See* LBP-11-11, 73 NRC at 487.

4.5 Michael H. Schwartz received both bachelor of science (B.S.) and master of science (M.S.) degrees in nuclear engineering from the University of Michigan. *See* Exh. AES000104, at 1 (Curriculum Vitae (CV) of Michael H. Schwartz). A consultant on issues relating to the nuclear fuel cycle for over 35 years, Mr. Schwartz currently serves as chairman of the board of directors of Energy Resources International, Inc. (ERI). ERI, a consulting firm established in 1989, provides energy and resource consulting services to electric power companies, private industry, institutions and associations, and government agencies in the United States and overseas. Among ERI's products is an annual nuclear fuel market projection that addresses all nuclear fuel market elements, including a chapter dedicated to the international market for uranium enrichment services. *See id.*

(ii) STAFF WITNESSES

4.6 Stephen Lemont received a B.S. in chemistry from Brooklyn College of the City University of New York and a Ph.D. in physical chemistry from Columbia University. *See* Exh. NRC000155, at 1 (Stephen Lemont Statement of Professional Qualifications (SPQ)). Dr. Lemont, who has worked for over 30 years managing and participating in major, multidisciplinary environmental projects for federal and state government agencies and private industry, previously was employed by the Northern Virginia District of the Virginia Department of Transportation; PG&E National Energy Group, an independent electric power producer; and Dames & Moore, an environmental and engineering consulting firm. *See id.* at 1-2. He currently serves as a senior project manager in the Environmental Protection and Performance Assessment Directorate, Division of Waste Management and Environmental Protection, in the NRC Office of Federal and State Materials and Environmental Management Programs (FSME), and is the EIS project manager for the EREF licensing proceeding. *See id.* at 1.

4.7 Bruce M. Biwer has a bachelor of arts (B.A.) degree in chemistry from St. Anselm College and M.S. and Ph.D. degrees in chemistry from Princeton University. *See* Exh. NRC000151, at 1 (Bruce M. Biwer SPQ). Dr. Biwer has worked at Argonne National Laboratory (ANL) since 1987 as a chemist and an environmental systems engineer, a position he currently holds with the ANL Environmental Science Division's Radiological Health Risk Section. He serves as project manager for the Staff's EIS for the EREF and authored the EIS terrorism section.

4.8 Based on the respective qualifications and experience of the proffered witnesses, the Board finds each of these AES and Staff witnesses qualified to testify regarding the purpose and need for the EREF.

c. Regulations and Guidance Relating to Purpose and Need for the Proposed Action

4.9 As was noted above, NRC regulations mandate that an EIS contain a description of the purpose of, and a discussion of the need for, a proposed action. *See supra* p. 521. Staff materials licensing-related guidance regarding the preparation of the purpose and need analysis in the applicant's environmental report (ER) and the Staff's EIS state that the applicant and Staff treatment of this subject should explain "why the proposed action is needed," going on to indicate that the discussions should describe

> the underlying need for the proposed action and should not be written merely as a justification of the proposed action, nor to alter the choice of alternatives. . . . Examples of need include a benefit provided if the proposed action is granted or descriptions of the detriment that will be experienced without approval of the proposed action. In short, the need describes what will be accomplished as a result of the proposed action.

Exh. NRC000189, at 5-2, 6-1 (NMSS, NRC, Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, NUREG-1748 (Aug. 2003)).

d. Evidentiary Findings

4.10 In its ER, AES sought to make its purpose and need showing based principally upon two factors. The first was "the importance from a national energy security perspective of establishing additional reliable and economical uranium enrichment capacity in the U.S." Exh. AES000070, at 1.1-1 ([AES, EREF, ER] (rev. 2 Apr. 2010)) [hereinafter ER]. In support of this security and policy objective, AES cited various Department of Energy (DOE), Department of State, and congressional committee statements. Some of these statements go as far back as 1989, with the most recent a July 2002 DOE letter to the NRC.[7]

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[7] As an additional policy ground supporting the need for the EREF, in its ER, AES also referenced the George W. Bush Administration-sponsored Global Nuclear Energy Partnership (GNEP). According to AES,

> [u]nder GNEP's reliable fuel services program, nations with advanced nuclear technologies would provide fuel to meet the needs of other countries in order to reduce the motivation for countries seeking nuclear power to develop uranium enrichment capabilities. By participating in GNEP, growing economies can enjoy the benefits of clean, safe nuclear power while minimizing proliferation concerns and eliminating the need to invest in the complete fuel cycle (e.g., enrichment). AES's new facility would further the objectives of GNEP by augmenting

(Continued)

See id. at 1.1-1 to -2. Additionally, AES provided (1) an ERI-prepared uranium enrichment requirements forecast utilizing both "reference" and "high-growth" estimates of installed nuclear power generating capacity based on a country-by-country and unit-by-unit review of current nuclear power programs and plans for the future;[8] and (2) an ERI-prepared estimate of worldwide current and potential future sources of uranium enrichment services that, in turn, were used to generate a detailed market analysis of the short and long term domestic and international need for enrichment services through 2030 under (a) a base scenario that assumed domestic enrichment production is provided by the existing Louisiana Energy Services, LLC (LES) National Enrichment Facility (NEF) as well as the planned AES EREF and the still-to-be-completed United States Enrichment Corporation (USEC) American Centrifuge Plant (ACP),[9] (b) the base scenario plus operation of the proposed General Electric-Hitachi (GEH) global enrichment laser facility (GLEF), or (c) six other scenarios that assumed the EREF was not constructed but that other sources of enrichment services were available domestically (i.e., from the GEH GLEF, additional USEC ACP expansion, United States weapons surplus high-enriched uranium (HEU)-derived low-enriched uranium (LEU) becoming commercially available) or internationally (i.e., from Russian Rosatom expansion or additional European production equal to that planned for the EREF). *See id.* at 1.1-3 to -26. AES summarized the results of that analysis as follows:

> [U]nder the Reference Nuclear Power Growth forecast, enrichment capacity pro-

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> international enrichment capacity and thereby increasing the reliability of global enrichment supply.

ER at 1.1-2. With the demise of the GNEP under the current presidential administration, however, this nonproliferation basis for the EREF has not been further cited by AES or the Staff.

[8] During the hearing, ERI Board Chair Schwartz described the difference between the reference and high-growth forecasts as follows:

> The reference forecast, as we generate it, is basically bottoms-up looking at individual projects, different countries, and it is our judgment as to whether there will be delay, whether projects will go forward at all, and just reflects our best judgment on each project.
>
> The high-growth case, which, as you suggest, [is] based on the sponsor, the project sponsor or in some cases it is the national electric power company's statement of what they intend to do, although in some cases we actually will ratchet that back to something that we think is more reasonable, maybe based on the history that has been demonstrated where a country or company has consistently said that they are going to do such-and-such, and it just never materializes or it is always delayed. So, we will make those adjustments.

Tr. at 420-21.

[9] Although the LES facility was licensed under the NEF designation, *see* Letter from Joseph G. Giitter, Chief, Special Projects Branch, NMSS, to Karl Gross, Licensing Manager, LES (June 23, 2006), encl. at 1 (NRC Materials License SNM-2010) (ADAMS Accession No. ML061780384), it currently is also being referred to as the URENCO USA facility. *See* URENCO USA, http://www.urenco.com/content/33/urenco-usa.aspx. In this decision, we will refer to the facility by its licensed designation.

vided by the proposed AES facility in the U.S. or one of the other alternatives presented will be necessary to help meet requirements for enrichment services that arise from presently operating and yet to be built nuclear power plants. However, by about 2021 it is also evident that neither the AES plant in the U.S. nor any of the alternatives will be adequate by itself to meet enrichment services requirements, which are forecast to continue to grow. Under the High Nuclear Power Growth forecast, by no later th[a]n 2014 it is apparent that no individual alternative would be adequate by itself to meet world enrichment requirements. Thus, not only will the AES enrichment facility be required in the U.S., but one or more of the other alternatives will also be required to meet forecast requirements.

. . . .

. . . [T]here is a deficit of U.S. supply relative to U.S. requirements in each scenario that is an alternative to the proposed AES facility in the U.S. While this is not necessarily unexpected in a world market in which nuclear fuel supply moves both into and out of the U.S., it does highlight the potential advantage of having additional indigenous supply of uranium enrichment services from the perspective of national security.

The need for a new enrichment plant, such as the one proposed by AES, which with a nominal enrichment capacity of 6 million [separative work unit (SWU)] per year [ ] will represent approximately 10% of world requirements when it is operating at full capacity, becomes even more apparent if even a small supply margin relative to requirements is viewed as desirable by owners and operators of nuclear power plants. This margin would help to assure competition and also help mitigate the impact of potential operational difficulties and/or disruptions at any enrichment plant in the future. If viewed from the perspective of the adequacy of U.S. supply to meet U.S. requirements, . . . the additional supply that would be made available by the presence of the AES enrichment facility in the U.S. would only serve to reduce the deficit, but would not eliminate it.

. . . .

. . . Therefore, [each of] the alternatives to building the nominal 6 million SWU per year AES enrichment facility in the U.S. . . . [has] a greater degree of inherent uncertainty associated with [it] than [constructing and operating the EREF]. Furthermore, when the critical nuclear fuel procurement objectives, security of supply and a competitive procurement process for U.S. purchasers of these services are considered, it becomes apparent that for long term planning purposes those alternatives, or even combinations thereof, are not acceptable. Accordingly, there is a demonstrated need for AES's proposed nominal 6 million SWU per year enrichment plant in the U.S.

Id. at 1.1-27 to -28.

4.11 In its FEIS, the Staff's approach to the required needs analysis focused on the market for domestic enrichment services and relied initially upon information regarding electricity requirements generated by DOE's United States Energy Information Administration (EIA), as well as the pending NRC workload relative to new power reactors. According to the Staff, a 2010 EIA forecast that nuclear

generation in the United States will grow from 806 billion kilowatt hours (kWh) in 2008 to between 882 and 951 billion kWh in 2035, in conjunction with the number of pending 10 C.F.R. Part 52 applications the agency has under active review for reactor design certifications (DCs) (three new applications and two DC amendments) and COLs (twelve applications encompassing twenty new units), "suggest a continuing, if not increasing, demand for LEU." Exh. NRC000134, at 1-5 (1 FSME, NRC, [EIS] for the Proposed [EREF] in Bonneville County, Idaho, NUREG-1945 (Feb. 2011)) [hereinafter FEIS].

4.12 Further, noting an EIA calculation that the current 5-year average domestic demand for enrichment services is 14 million SWUs per year and an EIA forecast that the annual domestic demand for enrichment services would be between approximately 13 and 16 million SWUs from 2006 through 2025, the Staff sought to categorize and analyze the current and future sources of that supply. According to the Staff, based on EIA data, there are three existing domestic market supply sources: domestic production, i.e., the Paducah Gaseous Diffusion Plant (PGDP) and the LES NEF, which account for 15% of United States demand; the Megatons to Megawatts Program, under which USEC at the PGDP converts Russian HEU from dismantled warheads into LEU, and which accounts for 38% of United States demand; and other foreign sources, such as China, France, Germany, the Netherlands, and the United Kingdom, which provide 47% of United States demand. Also, the Staff declares that with the scheduled demise of the Megatons to Megawatts Program in 2013 and the PGDP potentially ceasing operation within 2 or 3 years thereafter, 53% of the source that fulfulls current United States LEU demand will disappear. To fill this deficit, the Staff declares, are the LES NEF, which is operating but is still under construction, as well as the planned AES EREF, the USEC ACP, and the GEH GLEF. *See id.* at 1-5 to -7. Nonetheless, the Staff acknowledges, if the PGDP ceases operation and if the NEF and all the other facilities still to be licensed or completed eventually reach their full rated capacity

> the total projected enrichment capacity in the United States would exceed the projected demand (approximately 16 million SWUs per year) by about 6 million SWUs per year . . . . However, given the uncertainties in future development and/or potential expansion of the proposed projects, this projected level of extra capacity would not provide the needed assurance that the enriched uranium would be reliably available when needed for domestic nuclear power production.

Id. at 1-7.

4.13 Finally, observing that all the current domestic enriched uranium production comes from the PGDP or the just-opened-for-operation-but-still-under-construction LES NEF, the Staff declares:

> This situation creates a severe reliability risk in U.S. domestic enrichment capacity. Any disruption in the supply of enriched uranium for domestic commercial nuclear reactors could have a detrimental impact on national energy security because nuclear reactors supply approximately 20 percent of the nation's electricity requirements. The proposed EREF could play an important role in assuring the nation's ability to maintain a reliable and economical domestic source of enriched uranium by providing such additional enrichment capacity. Further, this additional capacity would lessen U.S. dependence on foreign sources of enriched uranium.

Id. The Staff then goes on to reference the July 2002 DOE letter cited by AES in its ER as establishing the United States policy that national energy security can be attained by providing additional domestic enriched uranium sources and declares that the EREF's "additional capacity would lessen U.S. dependence on foreign sources of enriched uranium." *Id.* Added to this, the Staff maintains, is the relative attractiveness of the EREF's gas centrifuge technology from both an economic and environmental perspective, as compared to the PGDP's less efficient and more energy-intensive gaseous diffusion technology. *Id.*

4.14 Both the AES and Staff analyses addressing the need for the EREF were issued before the March 2011 earthquake and tsunami that resulted in severe damage to the Fukushima Dai-ichi facility along the eastern coast of Japan. In response to the Board's May 2011 request for an evidentiary presentation regarding the possible impacts of that event on the future need for enrichment services and, concomitantly, the need for the EREF, acting as the lead party AES took a three-pronged approach to answering the question "Why the EREF?".

4.15 The first prong concerned the existing and future supply of domestic enrichment services. The AES business case for the EREF is based upon the need for enrichment services for the existing United States reactor fleet, with any need for enrichment services for "new builds" providing the basis for future facility expansion. *See* Tr. at 390-91 (Shakir Test.); *see also* AES Purpose and Need Presentation A, at 3. Current United States demand for enrichment services is approximately 14.5 million SWUs, with the need for enrichment services growing over the past 15 years because power uprates to the existing fleet have added the equivalent of twenty new nuclear reactors. *See* Tr. at 391 (Shakir Test.); *see also* AES Purpose and Need Presentation A, at 3. Further, approximately 40% of the current supply of domestic enrichment services is from the "Megatons to Megawatts" agreement with the Russians to downblend HEU into LEU, which expires in 2013 and will leave a significant supply gap. *See* AES Purpose and Need Presentation A, at 3. With only one of the two energy-intensive gaseous diffusion enrichment facilities still operating, and that one — the PGDP — scheduled to close between 2012 and 2016, the only domestic operating enrichment facility would be the LES NEF, which could meet only a quarter to a third of demand in the United States, depending on how much capacity is ultimately constructed

at that New Mexico facility. *See* Tr. at 392 (Shakir Test.). This would mean that, in the absence of any new domestic enrichment services capacity, to meet domestic LEU demand the United States nuclear fleet would have to rely heavily on foreign supplies, primarily from Russia. *See* Tr. at 390-93 (Shakir Test.); *see also* AES Purpose and Need Presentation A, at 3. Consequently, to meet this imminent deficiency in LEU, expanding domestic enrichment capacity received support in the 2005 Energy Act by reason of the authority provided DOE to grant loan guarantees for the construction and operation of domestic enrichment facilities, a policy that was reaffirmed in Secretary of Energy Chu's statement in a May 2010 press release concerning the DOE grant of a $2 billion loan guarantee for the EREF. *See* Tr. at 392-93; *see also* AES Purpose and Need Presentation A, at 3; Exh. NRC000160, at 1 (Press Release, DOE, DOE Offers Conditional Loan Guarantee for Front End Nuclear Facility in Idaho (May 20, 2010)).

4.16 Also presented by AES as supporting evidence of the need for EREF was information regarding the status of the contractual commitments AES actually has for the EREF's LEU output. Previously in the context of an AEA/safety-related issue concerning foreign ownership and control of the EREF, AES established that it had several billion dollars' worth of SWU contracts in place with various American utilities and others, an amount sufficient to fund EREF operation for more than 5 years. *See* LBP-11-11, 73 NRC at 492. Currently, those commitments translate to having 90% of the EREF's output through 2028 from the facility's initial 3.3 million SWU buildout already under contract. Two-thirds of this committed output is with fourteen United States utilities, which represent 50% of the existing United States operating reactor fleet of 104 units, with the balance of the 90% held by an AES parent company to be used as part of integrated product offers that are made to American and foreign utilities worldwide. *See* Tr. at 399, 400, 402 (Shakir Test.); *see also* AES Purpose and Need Presentation A, at 4.

4.17 Finally, to address directly the inquiry posed by the Board in requesting this presentation topic, *see supra* p. 522, AES presented an updated uranium enrichment requirements forecast prepared by ERI, the author of the AES ER forecast. In this estimate, in addition to providing the Board-requested forecast of the need for enrichment services by reducing the ER-projected increases in installed capacity by 50% for domestic (i.e., United States) capacity and 25% for nondomestic (i.e., non-United States) capacity, ERI also provided an update of both the projected enrichment services supply and the future demand for enrichment services.

4.18 Regarding the United States enrichment services supply, the USEC PGDP is projected to operate only through 2013, with its inventory used to support transition to the ACP, or, even if the ACP does not operate, to still cease operations within several years because of the competitive pressures associated with its high electrical usage costs. The LES NEF, which has been operational since 2010, will continue to increase its production to 5.7 million SWUs per year

by 2016, although that figure represents a 1-year slippage in the ER projection and still depends on the ability of LES to obtain a license amendment that would allow it to double the size of the 3 million SWU per year it is authorized to produce under its existing license. The USEC ACP is projected to obtain a DOE loan authorization this year, to begin SWU production in 2014, and to be producing 3.8 million SWUs per year by 2018, a 3- to 4-year slippage from the ER estimate. Relative to the Megatons to Megawatts program, an estimated 0.3 million SWUs per year would be produced between 2013 and 2019, at which point that supply source would cease. Although the AES EREF likewise is projected to suffer a 1-year slippage from the production forecast in the ER, it nonetheless is presumed to obtain a license in early 2012, begin operation in 2015, and be producing 6.4 million SWUs per year by 2022. Also, the transaction and tails assays used in these projections are expected to be slightly lower than those used in the ER, *see* ER at 1.1-7, for both domestic and nondomestic Western enrichment services suppliers, which results in a slightly lower level of supply at the tails assay stated in the ER over the long-long term. *See* Tr. at 406-09 (Schwartz Test.); *see also* AES Purpose and Need Presentation B, at 3. And finally, with respect to the GEH GLEF, its potential production was not factored into the ERI estimates in the ER or the Board presentation because GEH has not yet decided whether to construct that facility. *See* Tr. at 410-11 (Schwartz Test.).

4.19 Regarding nondomestic enrichment services supply, the information proffered to the Board by AES emphasized that small schedule slippage for new capacity since the ER was issued would be the watchword. For URENCO Europe, its operation and expansion are anticipated to continue at a steady state with an annual capacity of 14.5 million SWUs per year expected by 2015, which is 2 million SWUs per year more than the ER estimate. For the AREVA Georges Besse I gaseous diffusion plant, it is expected to face the same scenario as the USEC PGDP, with minimum-level production through 2012 and the use of its inventory to support the transition to the Georges Besse II gaseous centrifuge plant, which was operational in April 2011 and is expected to increase production up to 7.5 million SWUs per year by 2017. For Rosatom, the state-owned corporation that oversees both commercial and military nuclear activities in Russia, its continued expansion is still expected, although the Megatons to Megawatts program is expected to end in 2012 and there are barriers to its sale of enrichment services in the United States and Europe owing to trade laws and contractual constraints. Also, the ER projections regarding reprocessing of discharged fuel to offset the need for enrichment services are considered largely unchanged. All this results in an overall small change in expectations regarding nondomestic supply from the ER, with one major exception. Relative to the ER projections, Chinese enrichment services capacity is expected to increase significantly, i.e., by 8.7 million SWUs annually by 2030, to meet a larger share of Chinese internal requirements. *See* Tr. at 413-15 (Schwartz Test.); *see also* AES Purpose and Need Presentation B, at 4.

4.20 Further, in response to the Board's requested "stress test" to adjust the ER reference and high-growth forecasts of installed nuclear capacity by 2020 and 2030 by reducing the ER-projected increases in installed capacity by 50% for domestic capacity and 25% for nondomestic capacity, ERI calculated that, relative to the ER estimates, these reductions would result in installed capacity reductions of between (1) 4.2% for the 2020 reference growth forecast and 11.3% for the 2030 high-growth estimate for domestic nuclear generation; and (2) 5.5% for the 2020 reference growth calculation and 13.1% for the 2030 high-growth estimate for world (i.e., domestic and nondomestic) nuclear generation. And in terms of enrichment requirements, ERI calculated these adjustments by approximating them as a reduction in the net increase in the ER-identified requirements for enrichment services. On this basis, the "stress test" reductions of 50% for domestic requirements and 25% for nondomestic requirements resulted in a world reference 2016-2030 period annual average reduction of 5.3 million SWUs per year (8.2%) and a world high-growth 2016-2030 period annual average reduction of 9.4 million SWUs per year (11.6%).[10] *See* Tr. at 418-19, 423 (Schwartz Test.); *see also* AES Purpose and Need Presentation B, at 5-6.

4.21 Taking into account these "stress test" adjustments as applied to domestic enrichment services requirements, ERI calculations showed that over the period from 2016 through 2030, for both the reference and high-growth scenarios, the average annual requirements for domestic enrichment services would continue to exceed the domestic base supply, including the planned production from the EREF, by 0.8 million and 1.1 million SWUs, respectively. In contrast, utilizing the Board's requested "stress test" adjustments for domestic and nondomestic requirements, while the high-growth scenario average annual world enrichment services requirements during the 2016 to 2030 period would still exceed the world base supply, including the planned EREF production, by 0.4 million SWUs, for the reference forecast the average annual world base supply would exceed world enrichment services requirements by 5.7 million SWUs, a condition that also would apply, by 0.6 million SWUs, if the EREF was not in operation. *See* Tr. at 423-26 (Schwartz Test.); *see also* AES Purpose and Need Presentation B, at 7-8.

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[10] Although the ERI presentation provided figures only for the world (i.e., domestic and nondomestic) enrichment services reductions, using the methodology employed by ERI to calculate the world figures shows that, taking into account the Board's 50% reduction factor, for the reference case, average annual domestic SWU demand between 2016 to 2030 will drop 0.9 million SWUs (5.7%), while for the high-growth case, the average annual domestic SWU demand from 2016 to 2030 will be reduced by 1.35 million SWUs (7.9%).

Intuitively, it may seem odd that the domestic reduction percentage is smaller than that for the world reduction estimate, given the Board's larger reduction factor — 50% for domestic vs. 25% for nondomestic — but this does not account for the fact that nondomestic demand is larger by about a factor of three, making the 25% nondomestic reduction the stronger driver of overall world demand.

4.22 Having thus addressed the Board's "stress test" scenario, ERI also proffered a new forecast intended to reflect events occurring subsequent to the ER's submittal, which was based on the following assessments:

- Impact of the Fukushima accident — significant reductions in Japan and Germany, but minimal impact on the rest of the world when compared to the ER
- U.S. license renewals and power uprates continue following the Fukushima accident
- Continued expansion of nuclear power in China, which is very significant
- Downturn in world economy
- Renewed interest in low-cost natural gas
- Difficulty in obtaining long-term financing for new nuclear power plants
- Statements of ongoing support for nuclear power from government and industry leaders in most countries with existing nuclear power programs

AES Purpose and Need Presentation B, at 9; *see also* Tr. at 426-27 (Schwartz Test.). Further, according to ERI, its forecast is "conservative (low) relative to other post-Fukushima forecasts with regard to expectations for installed nuclear generation capacity in the long-term," AES Purpose and Need Presentation B, at 9, which is consistent with its forecast in the ER as compared to other entities, *see* Tr. at 427-28. ERI found that for both the reference and high-growth forecasts, domestic requirements will exceed domestic supply, specifically, the reference growth forecast will increase slightly from 0.8 to 1.1 million SWUs, while under the high-growth forecast the domestic supply deficit increases from 1.6 to 2.1 million SWUs. On the other hand, the average annual world base supply, which includes the EREF output, is projected to exceed world enrichment services requirements for the reference growth case from 2016 to 2030 by 3.2 million SWUs, but world enrichment requirements would exceed the base supply for the high-growth forecast by 6.0 million SWUs during this same period. *See* Tr. at 428-31 (Schwartz Test.); *see also* AES Purpose and Need Presentation B, at 10. Also in this regard, over the past 15 years, there has been an average yearly surplus of supply over requirements of about 3.2 million SWUs per year, which has served to offset any particular potential supply problems and assure there is a reasonable level of competition in the market. *See* Tr. at 454 (Schwartz Test.).

4.23 In its updated forecast, ERI thus concluded that with the EREF and all other domestic-based base supply, domestic requirements for uranium enrichment services are expected to exceed United States-based supply over the long term for both the reference and high-growth forecasts. Relative to world supply, taking into account EREF production and all other base supply, world supply is expected to exceed world requirements for the reference growth forecast, but requirements for

enrichment services are expected to exceed supply for the high-growth forecast. *See* Tr. at 432 (Schwartz Test.); *see also* AES Purpose and Need Presentation B, at 11.

e. Board Conclusions Regarding Purpose and Need for the Proposed Action

4.24 With the likely closure of the PGDP in the next several years, potentially leaving the United States with the LES NEF as its sole operating enrichment facility, the question of the need for the EREF would seem, at first blush, to be the proverbial "slam dunk." As it turns out, this is not necessarily the case, particularly in the wake of the Fukushima I incident in March 2011. To be sure, the wave of requests in this country to extend the operating life of the existing 104 operating reactors, and thus the potential ongoing demand for enrichment services for those facilities, has up to this juncture continued largely unabated. This can be contrasted, however, with the status of the seventeen docketed applications for new COL facilities. Even before the Fukushima I incident, agency licensing review had been essentially suspended on five of those applications, and post-Fukushima questions have been raised that bring into question the continuing viability of at least two others. This suggests that, as was the case following the Three Mile Island Unit 2 accident, at a minimum the time line associated with the licensing of new reactor facilities in the United States generally will be more protracted than was originally presumed. *See Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 161-62 & n.82 (2011). Moreover, post-Fukushima outside the United States, several countries, including Germany, Japan, and Switzerland, have indicated they will shut down some or all of their current operating power reactors over the next 15 to 20 years. *See* Tr. at 426, 446, 449 (Schwartz Test.). Certainly, it would not be wholly unexpected to see the projected schedules for constructing and operating new facilities in other countries delayed or postponed as well.

4.25 All of this has the potential to impact the need for enrichment services over the operating life of the proposed EREF. Nonetheless, from the Board's perspective, in the context of the agency's NEPA-related review of the need for this facility, several factors ultimately sustain a finding of a "need" for the EREF.

4.26 The first supporting element is the need to ensure the continued availability of diverse, reliable sources of domestic enrichment services to provide LEU for domestic power reactors. The importance of this general principle previously has been recognized in both the LES NEF and USEC ACP licensing proceedings. *See USEC Inc.* (American Centrifuge Plant), LBP-07-6, 65 NRC 429, 473 (2007); *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-05-13, 61 NRC 385, 443, *petition for review denied,* CLI-05-28, 62 NRC 721, 726 (2005). Although the congressional, DOE, and State Department policy pronouncements cited by the parties as confirming this policy are not necessarily

of the most recent vintage, we are aware of nothing that leads us to question that policy's continuing viability.[11] As such, the previously recognized domestic enrichment services availability policy supports a NEPA finding of a "need" for the construction and operation of the EREF.

4.27 The degree to which this "need for domestic sources" component is significant here, however, depends in large part upon the current and future domestic market for the enrichment services that the EREF will supply. The Board's "stress test" inquiry was intended to probe one potentially important aspect of this market existence question, i.e., what impact would a Fukushima I-related decline/delay in installed domestic and nondomestic nuclear facility capacity have on the previous ER analysis of the requirements for enrichment services over the next 20 years. So too, the updated May 2011 ERI forecast sought to account for this factor, as well as the other relevant enrichment requirements and supply changes that have occurred since the AES ER was provided to the Staff in 2009.

4.28 The "stress test" analysis outlined above indicates that, with the EREF operating, for either the reference or high-growth scenarios average annual domestic enrichment services requirements between 2016 and 2030 would still exceed the domestic supply by approximately 1.0 million SWUs per year. So too, the "stress test"-modified annual world requirements would, with the EREF operating, exceed supply by somewhat less than 0.5 million SWUs per year under the high-growth scenario, but world supply would exceed world requirements by more than 5.5 million SWUs per year for the reference scenario. This can be contrasted with the ERI May 2011 forecast. That projection suggests that, with the EREF operating, from 2016 to 2030 the average annual domestic supply deficit would increase for both the reference and high-growth scenarios to 0.3 million SWUs and 0.5 million SWUs respectively, while for the world, supply would exceed requirements for the reference case, but not for the high-growth forecast.

4.29 One can, of course, question whether the ERI revised forecast or the Board's more exacting "stress test" more accurately reflects the likely impacts of the Fukushima I accident on the enrichment services/supply market. Indeed,

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[11] In response to the Board's environmental question 1 requesting recent support for the proposition that a domestic supply of LEU is a matter of public policy, the Staff pointed to two recent statements by DOE, one by DOE Secretary Steven Chu in a May 2010 press release describing DOE's issuance of a two-billion-dollar loan guarantee for the EREF as helping to meet the need for increased uranium enrichment in the United States, and another in June 2010 congressional testimony by DOE Chief Operating Officer R. Shane Johnson indicating that although DOE did not believe its decision to sell downblended HEU from DOE's stockpile resulted in greater dependence on foreign uranium sources, to increase domestic enrichment capacity DOE had made available four billion dollars in loan guarantees for the deployment of advanced enrichment technology in the United States. *See* Staff Initial Environmental Questions Response at 1. Certainly, neither of these statements is inconsistent with this policy.

the ERI forecast suggesting that, notwithstanding the Fukushima I incident, for the 2016 to 2030 domestic reference and high-growth scenarios and the world high-growth scenario there will be an *increasing* supply deficit, seems somewhat counterintuitive. Nonetheless, looking particularly at the market for domestic enrichment services that is the focus of the policy concern outlined above, and which reflects for the reference and high-growth domestic estimates an annual enrichment services deficit of between 0.8 and 2.1 million SWUs, it is apparent both the "stress test" and ERI forecast results fully support a finding that there is a need for the EREF.

4.30 Moreover, two other factors reflected on the record of this proceeding further bolster the basis for this finding. One is the recognized "margin level" that exists in the enrichment market. As ERI chief executive officer Schwartz explained, on an average yearly basis, 3.0 million SWUs in excess of requirements generally exist in the enrichment market to provide a level of margin that offsets potential supply problems as well as maintains a level of reasonable market competition.[12] This already-existing level of margin signifies that there is some "give" in the enrichment services market that could absorb EREF production if need be.

4.31 Additionally, support for this needs finding comes from the testimony of AES President Shakir regarding the current status of industry commitments for the EREF's enrichment services. Noting that the AES business case was based on fulfilling the needs of the existing American nuclear fleet regardless of any new-built reactors, Mr. Shakir stated that 90% of the EREF's output through 2028 from the initial buildout of 3.3 million SWUs annually is already committed under contracts. Of this, two-thirds is with United States utilities and the other one-third is under commitment by AES's parent company to be available under the terms of integrated product and service agreements offered to domestic and foreign utilities by the parent. As was the case in the *LES* proceeding, *see LES,* LBP-05-13, 61 NRC at 444-45, this evidence of significant actual utility commitments provides a compelling showing in support of the need for the EREF.

4.32 Finally, in making this finding of a need for the EREF,[13] we note that the domestic enrichment service forecasts relied upon above are dependent on

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[12] Staff witness Dr. Biwer further supported this "margin" concept by noting that, depending on where the reactors are in their cycles and the fuel rod facilities are with the manufacturing process and what excess product capacity or storage they have, domestic demand does fluctuate from year to year by 2 to 4 million SWUs. *See* Tr. at 456-57 (Biwer Test.).

[13] At the July 11, 2011, 10 C.F.R. § 2.315(a) oral limited appearance session and in a plethora of written limited appearance statements submitted subsequently, the question was raised as to whether, relative to the Fukushima I accident, under section 51.92(a)(2) there is "new and significant circumstances or information" such that a supplement to the FEIS needs to be prepared by the Staff regarding the need for the EREF, a matter the Board had AES and the Staff address during one

(Continued)

an accurate assessment of the actual enrichment facilities that will be available over the next 5 years or so, in particular the availability of the already-licensed, but not yet fully constructed, USEC ACP. If the ACP does not begin operations, and at this juncture a federal loan guarantee apparently essential to moving that project forward has yet to be finalized, the need for the EREF's enrichment production would be further enhanced. On the other hand, if the ACP is to be built, the supply/demand figures that have been generated in this instance suggest that, notwithstanding its unique enrichment technology, the NEPA needs analysis relative to the still-to-be-licensed GEH GLEF, whose output was not considered in the AES ER needs analysis because there has not been a GEH commitment to build, *see* Tr. at 410-11 (Schwartz Test.), may become a much closer case.

2. "Preconstruction" Activities

a. Introduction

4.33 As part of its safety PID, the Board outlined the circumstances surrounding an exemption from the requirements of 10 C.F.R. §§ 30.4, 30.33(a)(5), 40.4, 40.32(e), 70.4, and 70.23(a)(7) that the Staff had granted AES in March 2010 permitting AES to begin certain "preconstruction" activities at the EREF site. *See* LBP-11-11, 73 NRC at 503-04, 505-07. As the Board noted there, the current provisions of Parts 30, 40, and 70 mandate that for a proposed nuclear materials-related activity, including uranium enrichment, "commencement of construction" relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance associated with the proposed activity is "grounds for denial" of the authorization to conduct that activity. Under this exemption, however, a variety of activities considered "construction" under the definitions that currently govern nuclear materials facilities, including the type of site clearing/grading

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of the mandatory hearing sessions, *see* Tr. at 457-61. Although, as we have observed previously, *see* LBP-11-11, 73 NRC at 521 n.31, the Board is under no duty in the context of this mandatory hearing proceeding to respond to these limited appearance statements as litigable concerns, we note that as the substance of our discussion above makes clear, relative to the matter of the need for the EREF, we do not see the Fukushima I matter as having providing "a '"seriously different picture of the environmental impact of the proposed project from what was previously envisioned."'" *Hydro Resources, Inc.* (P.O. Box 777, Crownpoint, NM 87313), CLI-06-9, 64 NRC 417, 419 (2006) (quoting *Hydro Resources, Inc.* (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-39, 60 NRC 657, 659 (2004) (quoting *Sierra Club v. Froehlke,* 816 F.2d 205, 210 (5th Cir. 1987))); *see also Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 373-74 (1989) (agency decisions regarding the need to supplement an EIS based on new and significant information are subject to the "rule of reason"). Moreover, to the degree any supplementation of the FEIS might be needed, this decision provides that subjunction. *See Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 230 & n.79 (2007) (in mandatory hearing, Commission discussion regarding alternative site review supplements EIS).

and building that AES indicated it wished to undertake prior to the completion of the Staff's environmental review of the EREF application, would now be considered "preconstruction" activities that are allowed to begin at reactor sites without any prior NRC authorization. *See id.* at 506. While concluding that, particularly in light of a pending agency rulemaking that would change the rules governing nuclear materials facilities like EREF to permit the preconstruction activities authorized by the exemption, the exemption appeared to be adequately supported, the Board also noted that the environmental impacts of preconstruction activities had been assessed as part of the FEIS for this proceeding and, as such, were subject to Board scrutiny in the context of the NEPA/environmental-related portion of this mandatory hearing. *See id.* at 507.

4.34 Consequently, as a follow-on to its AEA/safety-related determination, the Board requested that as one of their NEPA/environmental-related evidentiary presentations, the parties provide a presentation describing:

> a. Any activities that have been undertaken by AES pursuant to the Staff's March 2010 exemption approval; and
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> b. Relative to each of the construction activities authorized by the March 2010 Staff exemption, if those construction activities have been/were undertaken by AES, but AES subsequently was denied authorization to operate, or decided not to begin operation of, the EREF (i) what type of redress/restoration action would be mandated by any applicable federal, state, or local statutory and/or regulatory requirements; and (ii) what redress/restoration action AES would anticipate actually taking.

Board Presentation Topics and Administrative Directives at 3.

b. Witnesses and Evidence Presented

4.35 AES was also the lead party on this topic and provided testimony from two witnesses who elaborated on the information provided in its prefiled slide presentation, which was admitted as an exhibit at the evidentiary hearing. *See* Tr. at 461-78; Exh. AES000105 (ASLB Presentation Topic #2, Preconstruction Activities) [hereinafter AES Preconstruction Activities Presentation]. Two Staff witnesses likewise were made available to answer any Board questions regarding this topic.

(i) AES WITNESSES

4.36 George A. Harper, AES Vice President, Engineering and Licensing, testified previously in the AEA/safety-related portion of this mandatory hearing

and his qualifications and experience are outlined in that decision. *See* LBP-11-11, 73 NRC at 479.

4.37 The other AES witness, Jim Kay, AES EREF Licensing Manager, also testified previously in the AEA safety-related portion of this mandatory hearing and his qualifications and experience are set forth in that decision. *See* LBP-11-11, 73 NRC at 496.

(ii) STAFF WITNESSES

4.38 The background and qualifications for the two Staff witnesses, Stephen Lemont and Dr. Bruce Biwer, were set forth previously in section IV.A.1.b(ii), *supra.*

4.39 Based on the respective qualifications and experience of the proffered witnesses, the Board finds each of these AES and Staff witnesses qualified to testify regarding preconstruction activities.

c. Regulations and Guidance Relating to "Preconstruction" Activities

4.40 Current Parts 30, 40, and 70 requirements state that for a proposed nuclear materials-related activity, including uranium enrichment, "commencement of construction" relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance associated with the proposed activity is "grounds for denial" of the authorization to conduct that activity. 10 C.F.R. §§ 30.33(a)(5) (byproduct material), 40.32(e) (source material), 70.23(a)(7) (special nuclear material). Further, existing Parts 30, 40, and 70 regulations define "commencement of construction" to include "clearing of land, excavation, or other substantial action that would adversely affect the natural environment of a site." *Id.* §§ 30.4, 40.4, 70.4. As is noted in the SER accompanying the Staff's March 17, 2010 letter granting the AES exemption request, *see* Exh. NRC000082 encl. 1, at 1-2 (Letter from Daniel H. Dorman, Director, Division of Fuel Cycle Safety and Safeguards (FCSS), NMSS, to George Harper, Licensing Manager, AES (Mar. 17, 2010)) [hereinafter Staff Construction Exemption Approval], notwithstanding the existing regulatory language in Parts 30, 40, and 70, a recent change to the definition of "construction" in the context of power reactor licensing under 10 C.F.R. Parts 50 and 52 has established that a variety of activities considered "construction" under the definitions that still govern nuclear materials facilities, including the type of site clearing/grading and building that AES wishes to undertake prior to the completion of the Staff's environmental review of its

EREF application,[14] would now be considered "preconstruction" activities that are allowed to be undertaken at reactor sites without any prior NRC authorization. *See* Limited Work Authorizations for Nuclear Power Plants, 72 Fed. Reg. 57,416, 57,416 (Oct. 9, 2007), *corrected in* 73 Fed. Reg. 22,786, 22,786-87 (Apr. 28, 2008). What the Staff thus is permitting with this exemption is the extension of this reactor regime to materials facilities, including the EREF and the GEH GLEF.[15]

4.41 Two things are of note relative to this exemption. First, the Commission has approved and published a final rule that, when effective on November 14, 2011, revises sections 30.33(a)(5), 40.32(e), and 70.23(a)(7), and the definition sections associated with those provisions, to permit the type of preconstruction activities that are allowed under Part 50 and the exemption granted to AES. *See* Licenses, Certifications, and Approvals for Material Licensees, 76 Fed. Reg. 56,951, 56,962-66 (Sept. 15, 2011). Relying on the agency's legal interpretation that it lacks the authority under the AEA and NEPA to regulate "preconstruction" activities, *see id.* at 56,952, 56,954, 56,958-59, this rule revises the existing definition of "commencement of construction" in Parts 30, 40, and 70 to conform these provisions to the Part 50 standard.

4.42 In addition, as was noted in the *Vogtle ESP* proceeding, *see Vogtle ESP,* LBP-09-19, 70 NRC at 503-04, in contrast to the regulatory scheme that permits certain "construction" activities to be undertaken at a reactor site pursuant to a limited work authorization so long as a site redress plan is submitted, *see* 10 C.F.R. § 50.10(d), (g), there is no agency requirement that an applicant submit a redress plan relative to preconstruction activities or, absent state or local requirements, take any remediation action regarding preconstruction activities if it decides not to complete the project or is denied agency authorization to construct and operate the facility.

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[14] Under the revised 10 C.F.R. § 50.10(a)(2) activities that are no longer considered "construction" include clearing of the site, grading, installation of drainage, erosion and other environmental mitigation measures, and construction of temporary roads and borrow areas; erection of fences and other access control measures; excavation; erection of support buildings (such as construction equipment storage sheds, warehouses and shop facilities, utilities, concrete mixing plants, docking and unloading facilities, and office buildings) for use in the construction of the facility; building of service facilities such as paved roads, parking lots, railroad spurs, exterior utility and lighting systems, potable water systems, sanitary sewerage treatment facilities; and transmission lines. *See* Staff Construction Exemption Approval encl. 1, at 2.

[15] A similar request to the Staff for the GEH GLEF facility was approved by the Staff in May 2009. *See* Letter from Daniel H. Dorman, Director, FCSS, NMSS, to Albert E. Kennedy, Licensing Manager, GEH (May 8, 2009) (ADAMS Accession No. ML083510647).

d. Evidentiary Findings

4.43 Pursuant to the Staff's March 2010 exemption from the requirements of sections 30.4, 30.33(a)(5), 40.4, 40.32(e), 70.4, and 70.23(a)(7) of the Commission's rules, AES initiated various preconstruction activities in the fall of 2010. Prior to doing so, AES had begun mitigation of historical and cultural resource MW004, the John Leopard Homestead, which would be completely destroyed because it would be under the footprint of the security fence and a proposed electrical substation. *See* AES Preconstruction Activities Presentation at 5, 8-9; Tr. at 466, 469 (Kay Test.); FEIS at 4-6. AES then proceeded to improve the existing farmer's road on the site as well as to clear land for the site, the main access road, and the construction of power lines. *See* AES Preconstruction Activities Presentation at 5; Tr. at 466-67 (Kay Test.). Since completing those activities in November 2010, AES has not performed any other preconstruction activities. *See* AES Preconstruction Activities Presentation at 5; Tr. at 466-67 (Kay Test.). AES nonetheless may choose to perform other activities in the late summer/early fall of 2011, including topsoil removal at the location of the main plant area, clearing land, rock excavation, and access road construction. *See* AES Preconstruction Activities Presentation at 6; Tr. at 467 (Kay Test.).

4.44 With the preconstruction activities performed to date and those activities AES may still choose to perform, if AES is subsequently denied authorization to operate, or decides on its own accord not to begin operation of the EREF, redress or restoration of the site is not mandated by federal, state, or local requirements, statutory or otherwise. *See* AES Preconstruction Activities Presentation at 12; Tr. at 471-72 (Kay Test.). In particular, the NRC does not mandate site redress or restoration for preconstruction activities. *See* Tr. at 477 (Lemont Test.).

4.45 Even though not legally required to do so, AES nonetheless would anticipate redressing and restoring the site in several ways to minimize hazards to humans, wildlife, and the environment. *See* Tr. at 472 (Kay Test.). AES would regrade land to preclude erosion due to channeled runoff, stabilize areas by replacing soil and planting vegetation, take away all equipment and temporary structures, and remove any added fencing. *See* AES Preconstruction Activities Presentation at 13; Tr. at 473-74 (Harper Test.). After redress and restoration, the site should be suitable for animal grazing, but perhaps not for the agricultural purposes for which it currently is being used. *See* Tr. at 474-75 (Harper Test.).

e. Board Conclusions Regarding "Preconstruction" Activities

4.46 In responding to the Board's request for information on AES preconstruction activities, AES provided a complete and thorough presentation addressing each of the Board's areas of interest concerning this subject. AES initially outlined the limited preconstruction activities it had taken to date, primarily

clearing land for later construction. Then, albeit confirming its understanding that if the EREF is not constructed or operated, no federal, state, or local requirements would mandate that AES redress or restore the site, AES explained the degree to which it would redress and restore the site to minimize hazards to humans, wildlife, and the environment.

4.47 Given the agency's current regulatory posture regarding the need for materials license applicants like AES to redress any preconstruction activities they undertake, the Board concludes that AES's plan to redress and restore the site even if an NRC license to construct and operate the EREF ultimately is not obtained or the facility is not constructed is warranted and prudent. The AES description of its preconstruction activities and the reasonableness of AES's preconstruction activity plan also supports the various impact findings made by the Staff in its FEIS as well as issuance of the proposed license.

3. Greenhouse Gas Impacts of Facility's Production Power Consumption

a. Introduction

4.48 At all levels of government, policymakers are attempting to account for and address greenhouse gas (GHG) emissions. At the NRC, the Commission has directed the Staff to consider GHGs in its environmental reviews for major licensing actions. The Commission also directed that in the interest of consistency, for power reactors the Staff review should encompass emissions from the uranium fuel cycle as well as from construction and operation of the facility to be licensed. *See Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), CLI-09-21, 70 NRC 927, 931 (2009). Since receiving this Commission direction, the Staff has issued several EISs considering GHGs. *See, e.g.,* Exh. NRC000169, at 6-8 to -9 (1 Office of New Reactors, NRC & Planning, Environmental and Regulatory Division, U.S. Army Corps of Engineers, [EIS] for [COLs] for South Texas Project Electric Generating Station Units 3 and 4, NUREG-1937 (Feb. 2011)) [hereinafter South Texas COL EIS].

4.49 Per the Commission's NEPA GHG impacts guidance, the FEIS for the EREF includes a discussion concerning the GHG emissions associated with the construction, operation, and decommissioning of that facility. *See* FEIS at 4-127 to -142. In environmental question 11, the Board inquired why, given the discussion in the EISs for COL applications (such as that for the proposed South Texas facility) indicating that uranium enrichment facilities are primarily responsible for the carbon footprint of the uranium fuel cycle due to their high energy demands, there was no FEIS discussion of the GHG emissions that would be generated providing electricity to power the EREF centrifuges. See Initial Board Environmental Questions app. A, at 4. In its response, the Staff declared:

The NRC staff analyzed GHG impacts in both regional and national contexts while attempting to focus on the most meaningful aspects of EREF operation. In determining which aspects of the EREF operation would be included in the impact analysis, the staff reviewed available historical data on Idaho and national GHG emissions. Projections provided by Rocky Mountain Power regarding how required power would be provided to the EREF indicated that modifications to existing substations, the addition of one new substation, and construction of a 161-[kilovolt] transmission line would be needed, but no new generating capacity was proposed (NRC000134 at 2-12). Although it was impossible to specify the relative contributions from Idaho generating sources, it was possible to calculate a hypothetical bounding condition for GHG emissions from electricity production by assuming all required power would be generated by coal-fired power plants (the largest source of carbon dioxide emissions per unit of power produced among any of the existing utility-scale thermoelectric technologies).

However, the staff determined that such an assumption would be contrary to the historical record since no coal-fired power plants are currently operational in Idaho and, although an earlier State of Idaho moratorium on new coal plants has since expired, none are proposed for the foreseeable future. Natural gas-fired power plants, the only fossil fuel plants currently operating in Idaho, release roughly one third of the GHGs than coal-fired plants for equivalent amounts of power. Furthermore, the staff's review of available state and national data (NRC000168) revealed that natural gas accounts for only14 percent of Idaho electricity, while over 80 percent is generated by hydroelectric facilities, resulting in the electricity sector representing a relatively minor contribution to statewide total GHG emissions and Idaho accounting for only 0.1 percent of the national GHG emissions from electricity production. Data from state and national inventories of GHG emissions presented in Table 4-33 (NRC000134 at 4-133) further reveal that while transportation-related GHG emissions in Idaho and the United States (in calendar year 2000) accounted for virtually the same percentage of the state and national total GHG emissions (27 percent and 26 percent, respectively), percentages of GHG emissions related to electricity consumption were dramatically different (13 percent of the statewide total versus 32 percent of the national total).

Given the relatively small projected energy requirements for the EREF, which Rocky Mountain Power has indicated it can provide without additional generation capacity, and the reasonable expectation that the majority of required power would be generated by relatively GHG-free Idaho hydroelectric technologies, the staff determined that generating the electricity needed to support EREF operations would represent a relatively minor indirect contribution to the EREF GHG operational footprint and that the licensing decision, which this EIS supports, would be better informed by concentrating the GHG impact analysis on other aspects of EREF operation. Statewide GHG emission projections (NRC000134 at 4-132) revealed that by 2020, the transportation sector would make the largest contribution to statewide GHG, followed by agriculture-related activities and fuel consumption. Consequently, since both transportation and on-site fuel consumption were integral

to EREF operation, the staff focused its GHG impact analysis on EREF's potential contribution to the transportation and fuel consumption sectors.

Regarding the manner in which the environmental impacts of the uranium fuel cycle were introduced into the EIS for the South Texas Project Electric Generating Station Units 3 and 4 COL, NRC regulations at 10 C.F.R. § 51.51(a) require that the contributions of the uranium fuel cycle be evaluated and added to the environmental costs of a proposed new nuclear power plant. It was also appropriate for the South Texas Project's EIS to include a GHG assessment of the nuclear fuel cycle since the results of such an analysis would provide an important reference point for the proposed action against which to evaluate the GHG footprints of alternative power generating technologies. However, as acknowledged in Section 6.1 of the South Texas Project's EIS (NRC000169), the electric power demand for the gas centrifuge enrichment technology proposed for the EREF is significantly less than that for gaseous diffusion enrichment technology. Thus, coupled with the information discussed above regarding the low impact to GHG emissions from generation of electricity to power the proposed EREF, the staff focused its analysis in the EREF EIS on other sources of GHG emissions associated with EREF operations.

Staff Initial Answers at 10-12.

4.50 Relative to this Staff answer, noting that (1) coal-fired electrical generation associated with the annual production at a gaseous diffusion plant of the number of SWUs intended to be produced annually by the EREF gas centrifuges would generate approximately 25.5 million metric tons (MT) of GHGs; and (2) the Staff in the EREF FEIS had discussed GHG emissions in the neighborhood of 10,000 MT, in environmental question 22 the Board requested a quantitative showing of what the GHG emissions would be for the EREF's electrical consumption. *See* Board's Third Environmental Questions app. A, at 3. In its response to environmental question 22, the Staff indicated that if the EREF was dependent on coal-fired electrical generation, the GHG production for the electricity required to operate the facility annually would amount to approximately 276,000 MT. The Staff also observed, however, that (1) GHG-free hydropower is readily available in Idaho; (2) AES cannot dictate the source of power being delivered to the EREF; (3) there is no evidence to suggest that the EREF will cause any dramatic shift in how electricity is produced, or imported into, Idaho; and (4) the power demands of the EREF are small relative to a gaseous diffusion facility. As a consequence, according to the Staff, nothing suggests that electricity generation will be a primary factor responsible for EREF-related GHG emissions. *See* Staff Third Environmental Questions Response at 3-4.

4.51 With this response in hand, the Board requested the following presentation from the parties:

In its responses to Board environmental questions 11 and [22] (Prefiled Exhs. NRC000136 and NRC000176), the staff indicated that although the EREF's annual

full production power consumption could be responsible for the release of 276,036 tons of [GHG] emissions if all the required power were produced by coal-fired power plants, the current Idaho electricity technology profile (i.e., dominant use of hydropower and greater reliance on natural gas), when combined with the comparatively small power demands of the EREF relative to a gaseous diffusion plant of equivalent capacity, suggests that electricity will not be a primary factor responsible for GHG emission relating to EREF operations. Relative to these responses, please provide a presentation that:

a. Explains whether and why the significance level of SMALL assigned to the EREF GHG emission impacts (FEIS at 4-142) would or would not be affected if all the required power for the facility were produced by coal-fired power plants; and

b. (i) Provides a best estimate of the annual GHG emissions that would be associated with EREF's annual full production power consumption if all the required power for the facility were produced consistent with the electricity technology profile for likely EREF power suppliers (i.e., those supplying power to the eastern Idaho region); and (ii) explains whether and why the significance level of SMALL assigned to the EREF GHG emission impacts (FEIS at 4-142) would or would not be affected if all the required power for the facility were produced consistent with the electricity technology profile for likely EREF power suppliers.

Board Presentation Topics and Administrative Directives at 3-4.

b. Witnesses and Evidence Presented

4.52 The Staff was the lead party for this presentation topic. At the evidentiary hearing, after the Staff's slides were admitted into evidence, *see* Exh. NRC000190 (NRC Staff Presentation Topic 3, Greenhouse Gas Impacts of Facility's Production Power Consumption) [hereinafter Staff GHG Presentation], two Staff witnesses provided testimony on this subject, *see* Tr. at 478-519. AES did not make a presentation regarding this topic or proffer any witnesses for Board questions.

4.53 Also, as was noted in section II, above, *see supra* p. 517, after the evidentiary hearing but before the record was closed, in response to an unopposed Staff request, the Board permitted the Staff to supplement its evidentiary presentation with two new exhibits. One was the affidavit of Dr. Bruce M. Biwer, which incorporates revised versions of slides 10 and 11 from the Staff's GHG presentation, while the other was the DOE EIA's June 2011 Monthly Energy Review. *See* Exh. NRC000216 (Affidavit of Bruce M. Biwer Concerning the NRC Staff Unopposed Motion to Amend and Supplement the Record (July 29,

2011)) [hereinafter Biwer GHG Affidavit]; Exh. NRC000217 (EIA, DOE, June 2011 Monthly Energy Review, DOE/EIA-0035(2011/06) (June 28, 2011)).

4.54 Relative to the evidentiary hearing presentation on this subject, the Staff's first witness, Ron Kolpa, received a B.S. degree in chemistry from Illinois Benedictine University and an M.S. degree in chemistry from Iowa State University. Mr. Kolpa has over 30 years of experience in the areas of environmental science and environmental protection at both federal and state government agencies. Currently, Mr. Kolpa works as an environmental systems engineer and supervisor in the Physical Sciences Section of the ANL Environmental Science Division. *See* Exh. NRC000154 (Ron Kolpa SPQ).

4.55 The background and qualifications for the Staff's second evidentiary session witness, Stephen Lemont, and Dr. Biwer, the witness supporting its post-hearing evidentiary submission, are outlined in section IV.A.1.b(ii), *supra.*

4.56 Based on the respective qualifications and experience of the proffered witnesses, the Board finds each of these Staff witnesses qualified to testify regarding GHG impacts of the EREF's production power consumption.

c. Regulations and Guidance Relating to Greenhouse Gas Impacts of Facility's Production Power Consumption

4.57 Under NEPA, the NRC must assess the environmental impacts of a proposed facility, including those impacts associated with GHG emissions by the proposed facility. *See Lee,* CLI-09-21, 70 NRC at 931. In assessing GHG impacts, the NRC must devote its resources to taking a "hard look" at the issue. *Pa'ina Hawaii, LLC,* CLI-10-18, 72 NRC 56, 74 (2010); *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998). This standard requires the agency to rigorously explore and objectively analyze impacts, so that merely offering "'general statements about "possible" effects and "some risk" do[es] not constitute a "hard look" absent a justification regarding why more definitive information could not be provided.'" *Pa'ina,* 72 NRC at 74 (quoting *Blue Mountains Biodiversity Project v. Blackwood,* 161 F.3d 1208, 1213 (9th Cir. 1998)). Taking a hard look "'foster[s] both informed decision-making and informed public participation,'" and thus ensures that the agency does not act upon "incomplete information, only to regret its decision after it is too late to correct." *LES,* 47 NRC at 88 (quoting *Marsh,* 490 U.S. at 371).

4.58 At the same time, the agency need not undertake an unceasing impacts analysis. Rather, because NEPA is premised on a "rule of reason," the agency need only consider the reasonable alternatives to a proposed action. *See Pa'ina,* 72 NRC at 74. As a result, the NRC may decline to examine "remote and speculative risks" or events with "inconsequentially small" probabilities. *See Vermont Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989). In that regard, according to the Council on Environmental

Quality (CEQ), the "rule of reason" is "a judicial device to ensure that common sense and reason are not lost in the rubric of regulation." Final Rule: "National Environmental Policy Act Regulations; Incomplete or Unavailable Information," 51 Fed. Reg. 15,618, 15,621 (Apr. 25, 1986).

4.59 Irrespective of the cause of the impact or the appropriate level of administrative scrutiny, for the purpose of NEPA evaluation NRC regulations categorize impacts into three types: direct, indirect, and cumulative. *See* 10 C.F.R. § 51.14(b) (adopting various CEQ regulations, including definitions of direct, indirect, and cumulative effects/impacts in 40 C.F.R. §§ 1508.7, 1508.8, 1508.25). Direct impacts are those caused by the action that is the subject of the EIS, and occurring at the same time and place as that action, while indirect impacts are caused by the action at a later time or more distant place, yet are still reasonably foreseeable. *See id.* § 1508.8. In contrast, cumulative impacts are those that

> result[ ] from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Id. § 1508.7. But regardless of their classification as direct, indirect, or cumulative, impacts that are reasonably foreseeable are to be assessed. *See* 10 C.F.R. Part 51, App. A, § 7.

4.60 Finally, as a tool for assessing the significance of potential impacts, NRC regulations establish a standard scheme. *See, e.g., id.* Part 51, App. B, table B-1 n.3. This protocol was created based on the approach outlined in section 1508.27 of the CEQ regulations, which indicates that agencies should consider both the context and intensity of impacts. *See* 40 C.F.R. § 1508.27. The NRC has established three levels of impacts — SMALL, MODERATE, and LARGE — that are defined as follows:

> SMALL. The environmental effects are not detectable or are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.
>
> MODERATE. The environmental effects are sufficient to noticeably alter but not to destabilize important attributes of the resource.
>
> LARGE. The environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

FEIS at xxxi.

d. Evidentiary Findings

4.61 In the atmosphere, GHGs are transparent to incident solar radiation, but they act to trap radiation reflected from the surface of the earth, thus preventing heat from dissipating through the atmosphere and into space. Over time this process warms the earth's atmosphere. *See* Tr. at 483-84 (Kolpa Test.). GHGs principally result from the burning of fossil fuels, such as coal or natural gas. *See* Staff GHG Presentation at 3, 5; Tr. at 483 (Kolpa Test.). The burning process emits three primary GHGs: carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). *See* Tr. at 483 (Kolpa Test.). Since CO_2 predominates, convention dictates that the GHG amounts are combined and represented as a CO_2-equivalent (CO_2e). *See* Tr. at 483 (Kolpa Test.); *see also* Exh. NRC000193, at 3-1 n.52 (U.S. Environmental Protection Agency [(EPA)], Inventory of U.S. [GHG] Emissions and Sinks: 1990-2009, EPA 430-R-11-005 (Apr. 15, 2011)).

4.62 On a national level, coal is used to produce 45% of the electric power in the United States, whereas hydroelectric generation accounts for just 7%. *See* Staff GHG Presentation at 3; Exh. NRC000191, at 230 (Table 8.2a) (EIA, DOE, Annual Energy Review 2009, DOE/EIA-0384 (2009) (Aug. 19, 2010)). In Idaho, however, hydroelectric dominates as the energy production source, being responsible for 79.6% of electricity produced in that state. *See* Exh. NRC000192, at 75 (EIA, DOE, State Electricity Profiles 2009, DOE/EIA-348(01)/2 (Apr. 15, 2011)); *see also* Staff GHG Presentation at 4; Tr. at 487-88 (Kolpa Test.). Further, because hydroelectric produces no GHGs, electricity production in Idaho contributes only a small share of the nation's GHG emissions, i.e., approximately 0.05% of the national electricity-related GHG emissions. In other words, for each unit of electricity produced, far fewer GHGs are likely to be emitted if that electricity is produced in Idaho than almost anywhere else in the United States. *See* Staff GHG Presentation at 6; Tr. at 490 (Kolpa Test.).

4.63 But the electricity to power the EREF would not necessarily come from sources exclusively within Idaho. *See* Tr. at 502-03 (Kolpa Test.); Exh. NRC000194, at 73 (showing total power sales within Idaho nearly twice as large as net generation within Idaho) ((EIA, DOE, State Electricity Profiles 2009, DOE/EIA-348(01)/2 (Apr. 15, 2011)) [hereinafter 2009 Idaho Summary Statistics].[16] As a rule of thumb, transmission operators attempt to supply power to satisfy a load from the closest possible baseload source, a practice that reduces transmission losses. *See* Tr. at 488, 497-98, 500 (Kolpa Test.). Although this practice means that the EREF would likely receive most of its power from local in-state sources, ultimately the sources of EREF's power could vary regularly and, in any event, would be outside of AES's control. *See* Tr. at 500-03 (Kolpa

[16] Although submitted separately, exhibits NRC000192 and NRC000194 are excerpts from the same EIA/DOE document.

Test.). Electricity to power the EREF thus may come from sources outside of Idaho.

4.64 At the Board's request, as a bounding condition for the GHG emissions associated with EREF's annual full production power consumption of 683,280 megawatt hours (MWh), *see* Staff Third Environmental Questions Response at 3, the Staff calculated the resulting GHG emissions as if all the required power for the facility were produced by coal-fired power plants. According to the Staff, utilizing such a power source would produce GHG emissions of 674,900 MT CO_2e annually.[17] *See* Biwer GHG Affidavit at unnumbered p. 2 (revising slide 10 to Staff GHG Presentation). Such a coal production-only figure would be approximately 0.031% of the 2009 annual United States electricity generation GHG emissions of 2154 million MT CO_2e, which according to the Staff would have a SMALL impact on the environment. *See id.* at unnumbered p. 3.

4.65 In addition to this bounding estimate, in response to a Board request for a GHG estimate based on sources utilized in the area near the EREF, using the most recent emissions figures available from the EPA, the Staff calculated the annual GHG emissions if the power for the EREF were obtained from the Northwest Power Pool (NWPP), which includes the State of Idaho.[18] *See id.* at unnumbered pp. 3-4. The annual EREF power demand of 683,280 MWh and a Staff-identified emission factor for the NWPP of 858.8 pounds (lb)/MWh CO_2e yields an annual GHG emission rate of 266,749 MT CO_2e. *See id.* The Staff considers such an emission, at 0.012% of the 2009 United States electricity generation GHG emissions, to have a SMALL impact on the environment as well. *See id.* at unnumbered p. 4.

4.66 Finally, of its own volition, based on the assumption that all EREF power is provided by Idaho generators with their extensive hydroelectric power generation capacity, the Staff provided an estimate of GHG impacts using a 2009

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[17] This emission factor was derived by dividing the estimated annual amount of CO_2e generated by coal-fired power plants in the United States in 2010 (approximately 1828 million MT) by the estimated amount of power generated by these plants in 2010 (approximately 1850.8 million MWh), yielding an estimated emission factor of 0.9877 MT CO_2e/MWh. This figure, when multiplied by the EREF annual power demand figure of 683,280 MWh/year, yields 674,900 MT/year of CO_2e as the GHG emissions if all of the electrical power to the EREF were to be supplied by coal-fired electric generating plants. *See* Biwer GHG Affidavit at unnumbered p. 2.

[18] The NWPP, one of several nonoverlapping geographic regions in the United States that are defined by EPA for the purpose of collecting GHG emissions data, encompasses the upper northwestern portion of the continental United States, including Idaho and the surrounding areas. *See* Tr. at 492 (Kolpa Test.); *see also* Exh. NRC000195 (EPA, eGRID2010 Version 1.1 Year 2007 GHG Annual Output Emission Rates (May 10, 2011)) [hereinafter 2007 GHG Annual Output Emission Rates]. For each of these geographic regions, EPA calculates an annual GHG emission rate. *See* Tr. at 491-92 (Kolpa Test.). According to EPA, "[a]nnual total output emission rates for [GHGs] can be used as default factors for estimating GHG emissions from electricity use when developing a carbon footprint or emission inventory." 2007 GHG Annual Output Emissions Rates.

annual emission factor of 172.0 lb/MWh CO_2 for Idaho generators derived from a 2009 electrical generation CO_2 emissions total of 1,024,000 MT, which yielded an annual EREF GHG emissions figure of 54,145 MT CO_2.[19] *See* Staff GHG Presentation at 10; Tr. at 506 (Kolpa Test.). This, in turn, would be 0.0025% of the 2009 United States electricity generation GHG emissions, which the Staff likewise characterized as SMALL. *See* Staff GHG Presentation at 12-13; Tr. at 506 (Kolpa Test.).

e. Board Conclusions Regarding Greenhouse Gas Impacts of Facility's Production Power Consumption

4.67 In considering the impacts associated with the GHG estimates provided by the Staff, as the Staff noted, *see* Tr. at 515-16 (Lemont Test.), the agency has only recently begun considering the NEPA impacts of GHGs for licensing actions and is still striving to develop a consistent approach, with the Commission directing the Staff to consider GHG impacts in a comprehensive and uniform manner. With that in mind, in reaching our decision regarding the adequacy and accuracy of the Staff's analysis of the GHG emission impacts of EREF power production, we discuss several issues that deserve further explication.

4.68 Initially, we note that in response to the Board's written questions and later at the evidentiary hearing, the Staff appeared to rely upon a distinction between what it perceived as the more direct environmental impacts associated with EREF GHG emissions and the "relatively minor indirect contribution" to GHG emissions of the EREF's production power consumption as a basis for not providing any EIS consideration of the GHG impacts of such power consumption. *See* Staff GHG Presentation at 11-12; Tr. at 509-11 (Kolpa Test.), 512-14 (Lemont Test.). According to the Staff, its focus was on direct GHG impacts from the EREF, as opposed to those over which applicant AES has no control, as would be the case with regard to how the EREF's production power requirements are fulfilled. Moreover, according to the Staff, there was no evidence that operation of the EREF would require the addition of any power production capacity by any local power producer. *See* Staff Initial Environmental Questions Response at 11. As a consequence, in the case of the EREF, the EIS analysis was limited to "direct" GHG impacts from preconstruction, construction, operation, and decommissioning. *See* Tr. at 507-08, 511 (Kolpa Test.).

4.69 We, however, do not regard such characterizations as supported by agency regulations or the record of this hearing. While GHG impacts from EREF's production power consumption may be indirect in the sense that they

[19] Although the Staff subsequently refers to this as a CO_2e figure, *see* Staff GHG Presentation at 12, it appears this number reflects only CO_2 emissions, *see* 2009 Idaho Summary Statistics at 73.

potentially are caused at distant places where the electricity utilized by the facility is generated,[20] they nonetheless are reasonably foreseeable so as to deserve consideration if of sufficient moment.[21] *See* 40 C.F.R. § 1508.8. Moreover, the record before us demonstrates that these indirect impacts are not necessarily smaller in magnitude than the direct impacts that were considered in the EREF EIS: for example, indirect annual emissions of 266,749 MT CO_2e in the NWPP scenario or 54,145 MT CO_2 for the Idaho-only estimate as compared to direct emissions of 26,136 MT CO_2 annually from facility operation.[22] *Compare* Biwer GHG Affidavit at unnumbered pp. 2, 3-4 *with* FEIS at 4-141; *see also* Tr. at 506 ("54,145 metric tons of greenhouse gas is certainly not an insignificant number") (Kolpa Test.). Further, given previous agency EIS statements that "[t]he largest source of [CO_2] emissions associated with nuclear power is from the fuel cycle" and "[t]he largest use of electricity in the fuel cycle comes from the enrichment process," South Texas COL EIS at 6-9, attempting to dismiss the need for an EIS discussion of such impacts based solely on the unspecified difference in electrical consumption between a gaseous diffusion facility, such as the PGDF, and a gas centrifuge facility, such as the EREF, *see* Staff Initial Environmental Questions Response at 12, fails as a matter of consistency. As a result, we see no basis in logic or fact for the Staff's failure to discuss such impacts in its FEIS.

4.70 That being said, in responding to the Board's written questions and request for a presentation on GHG impacts associated with the proposed EREF

[20] Additionally, the Staff's description of direct impacts may in some instances be under-inclusive of the regulatory definition. NRC regulations adopt the CEQ definition of "direct impacts," which are those that are "caused by the action and occur at the same time and place," 40 C.F.R. § 1508.8, whereas the Staff appears to designate direct impacts as those over which the facility owner or operator has control, *see* Tr. at 511-12 (Kolpa Test.). In certain instances, however, impacts can arise at a facility over which no one has control or someone else has control, yet the impact still occurs at the facility. In those instances the Staff's definition seemingly would not capture direct impacts as defined by the regulations.

[21] Also in this regard, we note that recently issued CEQ draft guidance regarding the consideration of climate change and GHG emissions in EIS analyses suggests that since "Federal agencies typically describe their consideration of the energy requirements of a proposed action," in the context of that analysis "agencies should evaluate GHG emissions." *See* Memorandum from Nancy H. Sutley, Chair, CEQ, to Heads of Federal Departments and Agencies, Draft NEPA Guidance on Consideration of the Effects of Climate Change and [GHG] Emissions (Feb. 18, 2010) at 5 (citing 40 C.F.R. § 1502.16(e)) [hereinafter CEQ Draft GHG Emissions Memorandum].

[22] The pending CEQ draft guidance on climate change consideration suggests that, along the lines of the discussion in this section, a quantitative measure of estimated GHG emissions "can serve as a reasonable proxy for assessing potential climate change impacts, and provide decision makers and the public with useful information for a reasoned choice among alternatives," and that a useful indicator of the need for an EIS GHG analysis may be a proposed action's generation of more than 25,000 MT of direct CO_2e GHG emissions. *Id.* at 3. While the GHG emissions involved here are admittedly indirect rather than direct, even at the lowest Idaho-only levels proffered by the Staff, they exceed this reference point by a factor of two.

production power consumption, the Staff ultimately provided the basis for an adequate analysis under NEPA. As requested by the Board, the Staff assessed the GHG emission rates for two scenarios. The Staff first offered data and analysis detailing a GHG emission rate if all the required power for the EREF was produced by coal-fired power plants. That emission rate — 674,900 MT CO_2e annually — represents an upper bounding value. This can be contrasted with the second Staff figure of 266,749 MT CO_2e annually that reflects a discounting of the annual EREF GHG emission rate to recognize the substantial reliance on noncoal sources, such as hydroelectric power, by Idaho-region NWPP electricity sources likely to supply the EREF.[23] The Staff also provided another possible GHG footprint estimate of 54,145 MT, based on the assumption that all the power for the EREF was being provided by hydroelectric-dominant Idaho producers. Further, a comparison of these three emission rate figures to the 2009 United States electricity generation GHG emission figures shows them to be 0.031, 0.012, and 0.0025%, respectively, of the United States GHG emissions. *See* Biwer GHG Affidavit at unnumbered pp. 3-4; Staff GHG Presentation at 12. And, as was noted above, relative to all three of these estimates the Staff concluded that GHG emission rates would result in no more than a SMALL impact on the environment relative to the 2009 United States electricity generation GHG emission rate.

4.71 With regard to the size of the GHG impact at issue here, initially we find that, as among the three scenarios addressed by the Staff, the estimates based upon the NWPP figures are the most reasonable under the circumstances for assessing the environmental impacts of the proposed EREF. Although the Board sought a GHG analysis based on what is typical for electrical generation supply in the area in which the EFEF is located, the Staff indicated it was unable to provide such an analysis, suggesting instead that the impacts critique should best focus on what would typically come from electric power generators located in the state of Idaho. *See* Tr. at 497-99 (Kolpa Test.). This Staff alternative, however, fails to account adequately for the fact that power is typically wheeled widely in a given

[23] This NWPP CO_2e figure, apparently computed by using the annual total output emission rates for the NWPP of 858.79 lb CO_2/MWh, does not appear to account for the 16.34 lb CH_4/gigawatt hours (GWh), and 13.64 lb N_2O/GWh that would be components of any CO_2e estimate. *See* 2007 GHG Annual Output Emission Rates. At one point, the Staff suggested that this figure was 888.77 lb CO_2e/MWh, but this appears to reflect a misreading of the CH_4 and N_2O figures in exhibit NRC000195 as based on megawatt hours rather than gigawatt hours. *Compare id. with* Staff Third Environmental Questions Response at 3-4. Instead, as is reflected in another (albeit nonrecord) portion of the EPA document the Staff cited in support of the 858.79-lb figure, the correct CO_2e number for the NWPP appears to be 863.36 lb/MWh, which would result in a GHG emission figure for the EREF of 268,165 MT/year of CO_2e. *See* EPA, eGRID2010 Version 1.1 Year 2007 eGrid Subregion Emissions — Greenhouse Gases at 1 (May 10, 2011), http://www.epa.gov/cleanenergy/documents/egridzips/eGRID2010V1_1_year07_SummaryTables.pdf (last visited Oct. 2, 2011) [hereinafter 2007 Subregion Greenhouse Gas Emissions].

region depending on needs and availability. *See* Tr. at 500-02 (Kolpa Test.). As a consequence, we consider the NWPP estimate more depictive of EREF power usage and the associated GHG production than the Idaho-only estimate that the Staff appears to prefer.

4.72 And relative to the level of the particular GHG impacts associated with the facility's production power consumption, i.e., SMALL, MODERATE, or LARGE, from our perspective, for an individual facility, in most instances looking at anything beyond a comparison with the annual United States GHG impacts associated with the particular emission-generation activity at issue (here, electrical generation) comes close to predetermining that any GHG contribution will be considered SMALL. In this instance, a comparison of the figures associated with the three annual EREF GHG production scenarios and the 2008 global fossil fuel GHG figures posited by the Staff shows that the GHGs arising from the EREF-related estimates are, respectively, 0.0023, 0.00091, and 0.00018% of the global GHG figures, *see* Biwer GHG Affidavit at unnumbered pp. 3-4; Staff GHG Presentation at 12, which are numbers that tend to mask any real significance the impacts might actually have.[24]

4.73 That being said, we have no difficulty in concluding that the Staff's determination that the annual GHG emissions associated with the EREF's power

[24] Given source diversity and the low GHG emission levels of most entities, the problem of how best to assess the significance of GHG emissions for a particular source was also addressed in the draft CEQ guidance document:

> Because climate change is a global problem that results from global GHG emissions, there are more sources and actions emitting GHGs (in terms of both absolute numbers and types) than are typically encountered when evaluating the emissions of other pollutants. From a quantitative perspective, there are no dominating sources and fewer sources that would even be close to dominating total GHG emissions.
>
> . . . .
>
> Under this proposed guidance, agencies should use the scoping process to set reasonable spatial and temporal boundaries for this assessment and focus on aspects of climate change that may lead to changes in the impacts, sustainability, vulnerability and design of the proposed action and alternative courses of action.

CEQ Draft GHG Emissions Memorandum at 2. In this instance, the spatial and temporal boundaries for an assessment seem best drawn at a local or regional level (rather than on a national or global basis), although, for the same reason we find reliance on Idaho-only electrical production GHG emissions to be an unrealistic basis for computing the annual GHG emissions associated with electrical power production for the EREF, the Staff's suggestion that using Idaho-only annual GHG emissions as a basis for comparison seems less than satisfactory.

It should be added that another issue with the annual global GHG figures referenced by the Staff in its analysis is that using those estimates for comparative purposes poses a proverbial "apples and oranges" problem. Assonance between the compared GHG-producing activities being of some importance, measuring a figure for global "fossil fuel" GHG generation against a figure for "electricity generation" GHG production makes the comparative usefulness of the global figure problematic.

production are SMALL was correct.[25] With EREF GHG emissions based on NWPP power production being 0.012% of annual United States GHG electrical generation emissions, that designation has the requisite reasonable support in logic and fact.[26] Moreover, the record, including the Staff's FEIS as supplemented by all adjudicatory materials in this proceeding, indicates that the Staff's review of GHG emissions has been adequate pursuant to 10 C.F.R. Part 51 and supports issuance of the proposed license.

4. Preconstruction and Construction Air Quality Impacts

a. Introduction

4.74 In its FEIS, the Staff stated that while the air quality impacts arising from AES preconstruction and construction activities associated with the EREF generally would be SMALL for all hazardous air pollutants, such as organic compounds, and for all criteria air pollutants, such as carbon monoxide, nitrogen oxide, and sulfur dioxide, that was not the case for particulates. *See* FEIS at 4-113. Rather, the Staff declared, air quality impacts "would be MODERATE to LARGE for particulates during certain periods of preconstruction, despite application of appropriate mitigations," with construction impacts being SMALL because "construction activities are expected to constitute 10 percent of the overall impacts from preconstruction and construction." *Id.* According to the Staff, these MODERATE to LARGE preconstruction impacts were likely to arise as a result of fugitive dust generation and to last only as long as the dust-generating activities were under way. *See id.* at 4-12. In contrast, the NRC Staff asserted in the FEIS that during operation of the proposed EREF, the impacts on air quality would remain SMALL. *See id.*

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[25] Although not directly addressed in this context are the possible cumulative effects of the GHG emissions arising from electrical generation associated with the EREF, given the potential size of the emissions as identified above and the limited number of enrichment facilities either licensed or under (or likely to be under) consideration for licensing in this country, as a practical matter we do not see that in this particular instance such an analysis would provide any additional information relevant to the agency's NEPA inquiry. *See* CEQ Draft GHG Emissions Memorandum at 10.

[26] Not presented by the Staff was an estimate of EREF GHG emissions as a percentage of the NWPP electrical generation, a figure that, given our preference for the NWPP emission calculations as a reasonable measure of EREF GHG emissions, *see supra* pp. 551-52, we might consider to be the most accurate measuring stick for GHG impacts in this instance, *see* Tr. at 509-10 (Staff would attempt to make the greenhouse gas calculation consistent with the way impacts were calculated for other resources, so if impacts were identified at state level, then greenhouse gas impacts would be identified at that level) (Kolpa Test.). Nonetheless, another (although again nonrecord) portion of the same EPA document that the Staff relied upon to generate the NWPP numbers, *see supra* note 23, suggests that the EREF would contribute about 0.23% of the annual NWPP CO_2e emissions, *see* 2007 Subregion Greenhouse Gas Emissions, likewise a SMALL impact.

4.75 To better understand how the Staff reached these conclusions regarding the potentially MODERATE to LARGE air quality impacts during preconstruction and construction, the Board requested that the parties provide the following presentation:

> Please provide a presentation regarding the Staff's FEIS-related analysis of EREF [preconstruction and] construction air quality impacts, which should include a discussion of the following:
>
> a. The adequacy and capabilities of the selected air dispersion model;
>
> b. The determination of the surface data, meteorological data, terrain data, and modeling assumptions used; and
>
> c. The results obtained.

Board Presentation Topics and Administrative Directives at 3-4; *see* Licensing Board Memorandum and Order (Corrections Regarding June 2, 2011 Issuance and Prefiled Exhibit NRCR00077) (June 21, 2011) at 1 (unpublished).

b. Witnesses and Evidence Presented

4.76 Once again, the Staff served as the lead party for this presentation, providing the testimony of one witness to elucidate its presentation materials that were admitted into evidence. *See* Tr. at 519-57; Exh. NRC000197 (NRC Staff Presentation for Topic 4, Preconstruction and Construction Air Quality Impacts) [hereinafter Staff Air Quality Impacts Presentation]. AES did not provide a witness for this topic.

4.77 The background and qualifications for Staff witness Ron Kolpa, who was the technical reviewer for and author of the FEIS section on air quality impacts, *see* Tr. at 524 (Kolpa Test.), are discussed at section IV.A.3.b, *supra.*

4.78 Based on his qualifications and experience, the Board finds this Staff witness qualified to testify regarding preconstruction and construction air quality impacts.

c. Regulations and Guidance Regarding Preconstruction and Construction Air Quality Impacts

4.79 Under NEPA, the agency must assess the environmental impacts of a proposed facility like the EREF. *See* 42 U.S.C. § 4332(2)(C)(i). Following this general NEPA directive to evaluate impacts, the Staff assesses air quality impacts as a matter of course. *See, e.g., USEC Inc.* (American Centrifuge Plant), LBP-07-6, 65 NRC 429, 487-88 (2007). In keeping with its standard impact

evaluation protocol, the Staff categorizes these impacts as SMALL, MODERATE, or LARGE. *See* section IV.A.3.c, *supra.*

4.80 In parallel with the Staff's role under NEPA to assess environmental impacts, the EPA possesses authority under the Clean Air Act to set numerical standards for air pollutants from emission sources, which would include the proposed EREF. *See* 42 U.S.C. § 7411. EPA's National Ambient Air Quality Standards (NAAQS) set maximum levels for air pollutants in the ambient air deemed to provide protection for human health and welfare. *See* 42 U.S.C. § 7409(b); 40 C.F.R. Part 50. NAAQS exist for sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), lead, ozone, particulate matter (PM) with an aerodynamic diameter greater than or equal to 10 micrometers (µm) (PM_{10}), and PM with an aerodynamic diameter greater than or equal to 2.5 µm ($PM_{2.5}$). *See* 40 C.F.R. Part 50. In Idaho, EPA has granted authority to the State to implement, maintain, and enforce its own EPA-compliant air quality programs through State Ambient Air Quality Standards (SAAQS). *See* 42 U.S.C. § 7410(a)(1). That, however, does not relieve the NRC of its duty under NEPA to assess the environmental impacts of air pollutants associated with the proposed EREF, including giving appropriate consideration both to whether any pollutant surpasses the NAAQS and the consequences of that pollutant exceeding the NAAQS.

d. Evidentiary Findings

4.81 To assess the air quality impacts posed by the preconstruction and construction of the proposed EREF, the Staff used an air dispersion model referred to as AERMOD, which is an acronym that reflects this regulatory model's development by the American Meteorological Society (AMS) and EPA. *See* Staff Air Quality Impacts Presentation at 3. Currently, AERMOD is the primary model for demonstrating compliance with EPA regulations and for State air quality protection planning. *See id.*; Tr. at 525 (Kolpa Test.); Exh. NRC000198, at 10-11 (Office of Air Quality and Standards, EPA, AERMOD: Description of Model Formulation, EPA-454/R-03-004 (Sept. 2008)) [hereinafter AERMOD Model Description]; Revision to the Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions, 70 Fed. Reg. 68,218, 68,218 (Nov. 9, 2005). Although AERMOD has replaced the Industrial Source Complex Model (ISC3) as the preferred model for this purpose, *see* AERMOD Model Description at 11, AERMOD itself is subject to a process of continuous verification and refinement, *see* Tr. at 553-56 (Kolpa Test.).

4.82 AERMOD operates by modeling a steady-state Gaussian plume that predicts air dispersion based on defined parameters in the planetary boundary layer (PBL). *See* Staff Air Quality Impacts Presentation at 3; Tr. at 525-26, 537

(Kolpa Test.). The PBL is that layer of the atmosphere immediately adjacent to the ground surface. *See id.* at 525 (Kolpa Test.). Relevant modeling parameters in the PBL include atmospheric turbulence conditions and surface characteristics. *See id.* (Kolpa Test.). The ability of AERMOD to allow modeling across these parameters permits relative flexibility in obtaining air dispersion simulations based on a variety of site-specific characteristics, including rural/urban area, flat/complex terrain, surface-level/elevated releases, single/multiple sources, and point/area/line/volume sources, as well as 1-hour to annual (or period) averaging times. *See* Staff Air Quality Impacts Presentation at 4; Tr at 525-27 (Kolpa Test.).

4.83 As inputs to the model, AERMOD uses hourly, sequential, preprocessed meteorological data.[27] *See* Tr. at 526 (Kolpa Test.); *see also* Staff Air Quality Impacts Presentation at 5-6. Being able to employ such refined inputs permits estimates of not only airborne concentrations, but also dry and wet deposition rates for both particulate and gaseous nonreactive emissions. *See* Tr. at 526 (Kolpa Test.). Also, results can be averaged over time frames ranging from 1 hour to multiple-year periods. *See* Tr. at 526 (Kolpa Test.); *see also* Staff Air Quality Impacts Presentation at 4.

4.84 Three surface characteristic data comprise essential inputs to AERMOD: surface roughness, albedo, and the Bowen ratio. *See* Staff Air Quality Impacts Presentation at 7; Tr. at 528-30 (Kolpa Test.). Surface roughness, which represents the height of obstacles relative to wind flow, is a measure of surface irregularities that are associated with surface vegetation, topography, or structures and can alter the direction of the near-surface winds. *See* Tr. at 528-29 (Kolpa Test.). Albedo, which represents a reflection coefficient of solar radiation, is the ratio of the amount of radiation incident to a surface to the amount of radiation that is reflected from that surface. *See* Tr. at 529 (Kolpa Test.). Albedo is used to determine the amount of convection that can be expected at the PBL as a result of heat energy being radiated from the earth's surface, with fresh snow, which is highly reflective, and heavily vegetated cover, which allows very little incidental heat energy radiation, being the extremes in this regard. *See* Tr. at 529-30 (Kolpa Test.). The Bowen ratio, which is a surface moisture indicator that is the ratio of sensible heat flux to latent heat flux, is used to determine PBL parameters for the differing convective conditions that would occur over different planetary surfaces, with bodies of water at one end of the spectrum and the midday desert

[27] Surface hourly meteorological data inputs include ambient temperature, wind speed and direction at one- or multiple levels, station pressure, sky condition, standard deviation of wind direction fluctuations, and upper sounding data. *See* Staff Air Quality Impacts Presentation at 6; *see also* Tr. at 528 (Kolpa Test.).

at the other.[28] *See* Tr. at 530 (Kolpa Test.); *see also* Staff Air Quality Impacts Presentation at 7.

4.85 Surface characteristic data for AERMOD modeling used for the EREF were obtained on the EREF property as well as on comparable nearby properties, including the Materials and Fuels Complex (MFC) within the Idaho National Laboratory (INL) site, which is located about 11 miles west of the proposed EREF, and the Pocatello, Idaho municipal airport. *See* Exh. NRC000135, at C-4 to -5 (2 FSME, NRC, [EIS] for the Proposed [EREF] in Bonneville County, Idaho, NUREG-1945 (Feb. 2011)) [hereinafter FEIS Appendices]. The elevation, terrain features, and land uses surrounding the INL MFC are particularly comparable with those of the proposed EREF site. *See* FEIS Appendices at C-4; Tr. at 535 (Kolpa Test.). Further in this regard, terrain and land cover information required by AERMOD to model the surface characteristics over which the dispersing plume will pass was obtained from the United States Geological Survey's (USGS) digital elevation model and land cover data for the area around the MFC, which were utilized because they were considered representative of the EREF site. *See* Tr. at 534-35 (Kolpa Test.).

4.86 Ideally, AERMOD meteorological data also should be obtained at the site to be modeled or as close by as practicable. For the EREF, the most reliable meteorological measuring station in the vicinity is a National Weather Service (NWS) station near the INL MFC. *See* Tr. at 531-32 (Kolpa Test.); FEIS Appendices at C-4. Moreover, to ensure that AERMOD meteorological data are representative over the long term and are not influenced by unusual short-term conditions, 5 years of continuous data are used. *See* Tr. at 532 (Kolpa Test.). When individual datum was unavailable, substitute datum from the Idaho Falls Regional Airport, Fanning Field — another NWS station — was used. *See* Tr. at 532 (Kolpa Test.). Additionally, upper sounding data were gathered from the NWS station at Boise, which is the only place in the State where such data are collected. *See* Staff Air Quality Impacts Presentation at 8; Tr. at 534 (Kolpa Test.).

4.87 In utilizing the AERMOD model to help arrive at an understanding of the air quality impacts associated with a proposed activity, in addition to inputs derived from direct meteorological measurements and surface/terrain characteristics, the Staff imposed several assumptions on the AERMOD model intended to reflect the scale and duration of anticipated activities on the EREF site. In defining these assumptions, which the Staff attempted to do using conservative values

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[28] Over water, the Bowen ratio describes heat transfer, either sensible heat, which is manifested as a change in temperature, or latent heat, which is manifested as an increase in water vapor in the PBL due to evaporation. Away from water, the Bowen ratio describes the manner in which heat incident to the ground surface promotes warming of the atmosphere and increases in near-surface relative humidity. *See* Tr. at 530 (Kolpa Test.).

tempered with professional judgment, *see* Tr. at 541, 552 (Kolpa Test.), the Staff took into account a number of activities that could act as emission sources for criteria pollutants or particulates: types of construction vehicles, onsite comfort heating systems, ground disturbance and wind erosion, travel on unpaved roads, the onsite concrete batch plant, onsite petroleum fuel storage, corrosion control coatings handling and application, welding and brazing, and the use of explosives for grade alteration. *See* Staff Air Quality Impacts Presentation at 10. But the assumptions associated with those activities were, in turn, further dependent on other assumptions regarding construction schedules, size of active construction zones, number/type/condition of equipment used, workforce size, fuel consumption, soil type and moisture content, and intended mitigation measures. *See* Staff Air Quality Impacts Presentation at 11; Tr. at 540 (Kolpa Test.). As a consequence, the Staff identified still other assumptions about circumstances on the EREF site that it considered relevant to informing the model, including AES employing well-maintained vehicles that, as appropriate, use low-sulfur diesel fuel; having the majority of the materials and equipment used on the site delivered from Idaho Falls; utilizing a workforce that commutes (without carpools or buses) from Idaho Falls with an average workday of 10 hours for 21 days each month; managing air pollutants using best practices; and a particulate size consistent with high-silt unconsolidated soil on a average disturbed area of 221 acres. *See* Staff Air Quality Impacts Presentation at 12; Tr. at 541-43 (Kolpa Test.).

4.88 Utilizing the input meteorological/surface data and the source assumptions, AERMOD facilitates a comparison of air quality results for the site with both the NAAQS and SAAQS. Criteria pollutants are modeled for CO, NO_2, SO_2, and PM for both PM_{10} and $PM_{2.5}$ particles. See Staff Air Quality Impacts Presentation at 14; Tr. at 545 (Kolpa Test.). AERMOD predicts that for the EREF, all of the NAAQS and SAAQS would be met at the property boundary, except for particulates, which exceeded the standard at the property boundary primarily because of fugitive dust. *See* Staff Air Quality Impacts Presentation at 14-15; Tr. at 547 (Kolpa Test.).

4.89 In that regard, total concentrations of PM_{10} and $PM_{2.5}$ particulates (including background) from preconstruction and construction are estimated to constitute as much as 271.5% and 105.3% of the NAAQS/SAAQS 24-hour limits, respectively. *See* Staff Air Quality Impacts Presentation at 14. Yet, PM_{10} and $PM_{2.5}$ particulates in the area of the EREF already have background concentrations roughly a third of the standard for PM_{10}, i.e., 52.0 micrograms per cubic meter ($\mu g/m^3$), compared to the 24-hour standard of 150 $\mu g/m^3$, and more for $PM_{2.5}$, i.e., 21.0 $\mu g/m^3$ compared to the 24-hour standard of 35 $\mu g/m^3$. *See* Staff Air Quality Impacts Presentation at 14; Tr. at 545 (Kolpa Test.). Thus, apart from EREF preconstruction or construction activities, substantial quantities of particulates from fugitive dust already impact air quality in the vicinity of the facility.

4.90 Finally, relative to the AERMOD model, EPA has noted that AERMOD suffers from a modeling artifact that may exaggerate low wind speed ambient air concentrations.[29] *See* 70 Fed. Reg. at 68,245-46; *see also* FEIS Appendices at C-10 to -11. AERMOD is based on a steady-state Gaussian plume model, although that model does not accurately describe dispersion under calm conditions, *see* 70 Fed. Reg. at 62,245, and the resulting bias affects AERMOD's results for EREF air quality impacts. *See* Tr. at 547-50 (Kolpa Test.); FEIS Appendices at C-10 to -11. In reality, particulate concentrations are very sensitive to wind speed because low wind speeds can result in minimal dust dispersion once that particulate is airborne, resulting in the highest fugitive dust concentrations in downwind directions. *See* Tr. at 547 (Kolpa Test.). Consequently, accurate modeling of calm conditions becomes essential to an understanding of what may be the largest contributor to particulate concentrations.

4.91 To better comprehend the magnitude of AERMOD's bias in assessing EREF air quality impacts, the Staff performed a sensitivity analysis. The Staff altered the input low wind speeds from 0.134 meters per second (m/s), which is the low threshold of wind-speed-measuring equipment at MFC, to 1.0 m/s. *See* Tr. at 548-49 (Kolpa Test.); FEIS Appendices at C-10 to -11. As a result of this change, the total PM_{10} concentration dropped from 271.5% of the NAAQS/SAAQS standards to 161.3% of the standard and the total $PM_{2.5}$ concentration dropped from 105.3% of the standards to 94.1% of the standards. *See* Exh. Staff Air Quality Impacts Presentation at 16; Tr. at 549 (Kolpa Test.).

e. Board Conclusions Regarding Preconstruction and Construction Air Quality Impacts

4.92 In responding to the Board's request for a presentation on preconstruction and construction air quality impacts by the proposed EREF, the Staff provided a complete and thorough analysis and presentation. The Staff addressed each of the Board's concerns, including (1) the adequacy and the capabilities of the selected dispersion model; (2) the analysis underlying the Staff's determinations about the surface data, meteorological data, terrain data, and other modeling assumptions that were to be used in that model; and (3) the results that were obtained from the model. *See* Tr. at 523-24 (Kolpa Test.).

4.93 Regarding the adequacy of the dispersion model, the Staff reasonably relied upon a highly refined model — AERMOD — for modeling the impact of air pollutants associated with the proposed EREF. Regarded as the principal

[29] Although EPA apparently intends to make modifications to AERMOD to address the recognized low wind speed bias in that model, the agency has not yet done so. *See* Tr. at 547, 549-50 (Kolpa Test.).

model for demonstrating compliance with EPA regulations, AERMOD takes into account years of preprocessed meteorological data along with surface/atmospheric conditions that would correspond to conditions at the proposed EREF to provide a reasonably accurate assessment of possible pollutant dispersion during facility preconstruction and construction. Moreover, the fact that AERMOD is subject to a continuing process of verification and refinement provides assurance that the Staff relied upon a capable dispersion modeling program.

4.94 On the matter of modeling inputs, the Staff reasonably determined the appropriate meteorological, surface/terrain, and other data inputs to AERMOD, which were obtained for the EREF property or for representative lands nearby. Moreover, the Staff procured a comprehensive set of data parameters to inform AERMOD fully and obtained a substantial volume of pertinent data to represent conditions on the EREF site appropriately. Additionally, the Staff reasonably relied upon various additional assumptions regarding the scope and duration of EREF preconstruction and construction activities and the existing circumstances at the EREF site to ensure that the model produced a reasonably accurate depiction of air quality impacts arising from preoperational activities at the EREF site.

4.95 Lastly, on the matter of modeling results, the Staff obtained comprehensive results from AERMOD for CO, NO_2, SO_2, and both PM_{10} and $PM_{2.5}$. AERMOD predicts that, with the exception of particulates, all of the relevant NAAQS and SAAQS would be met at the EREF property boundary. Although total concentrations of PM_{10} and $PM_{2.5}$ particulates (including existing background levels) constitute at most 271.5% and 105.3% of the respective NAAQS/SAAQS 24-hour limits, two factors affect these values. PM_{10} and $PM_{2.5}$ in the area of the EREF already have background concentration levels that are roughly a third of the applicable standards, i.e., for PM_{10}, 52.0 $\mu g/m^3$ compared to the 24-hour standard of 150 $\mu g/m^3$, and for $PM_{2.5}$, 21.0 $\mu g/m^3$ compared to the 24-hour standard of 35 $\mu g/m^3$. Therefore, wholly apart from EREF preconstruction or construction activities, substantial quantities of particulates from fugitive dust already impact air quality in the vicinity of the site. At the same time, EPA has acknowledged that AERMOD suffers from a modeling artifact that may exaggerate low wind speed ambient air concentrations. A Staff sensitivity analysis attempting to correct for this modeling artifact in assessing EREF preconstruction and construction impacts indicates that while all predicted particulate concentrations may not be reduced to below NAAQS/SAAQS standards, the model nonetheless may significantly overstate particulate concentrations.[30]

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[30] The Staff noted as well that instances in which fugitive dust-producing construction activities will coincide with low prevailing wind speeds in the direction of the closest property boundary from the proposed EREF so as to have a MODERATE impact on near-field air quality are in a wind direction that is only likely to occur less than 4% of the time. *See* FEIS at 4-22.

4.96 Based on the foregoing, the Board finds that the Staff reasonably relied upon a suite of robust analysis tools to assess the preconstruction and construction air quality impacts associated with the proposed EREF. As a result, the Staff has sufficiently supported its conclusion regarding those preconstruction and construction air quality impacts in both logic and fact. Moreover, the record, including the Staff's FEIS as supplemented by all adjudicatory materials in this proceeding, establishes that the Staff's review of preoperational air quality impacts has been adequate pursuant to 10 C.F.R. Part 51 and, in conjunction with the AES commitment to implement the Staff-identified mitigation measures for fugitive-dust generation control, *see* AES Fourth Environmental Questions Response at 2, supports issuance of the proposed license.

5. Effluent and Radiological Environmental Monitoring Programs

a. Introduction

4.97 As was noted by the Staff in its FEIS, while the AES Effluent Monitoring Program (EMP) addresses "monitoring, recording, and reporting of data from radiological contaminants emitted from specific points," the AES Radiological Environmental Monitoring Program (REMP), which concerns "the monitoring of general environmental media . . . within and outside the proposed EREF property boundary," will "be used to confirm the effectiveness of the effluent controls and the EMP and to verify that facility operations do not result in detrimental radiological impacts on the environment." FEIS at 6-1. And one of the important monitoring concerns for the EREF would be to measure any leakage of uranium hexafluoride (UF_6) or its reaction products from storage cylinders onsite. In environmental question 12(a), the Board first asked how, aside from quarterly analyses of water and/or sediment in the two-cylinder storage pad stormwater retention basins, leakage of UF_6 or its reaction products from storage cylinders would be detected. *See* Initial Board Initial Environmental Questions attach. A, at 5. In its response, AES declared:

> The EREF does not solely rely on the physiochemical effluent monitoring and radiological environmental monitoring systems to detect potential leakage from the storage cylinders. Before the [depleted UF_6 (DUF_6)] cylinders are placed on the storage pads, they are surveyed for external contamination (wipe tested). Once moved to the storage pad, leakage of [UF_6] or its reaction products from the cylinders would also be detected by the inspection program, as discussed below.
>
> Section 4.13.3.3 (Mitigation for [DUF_6] Temporary Storage) of the ER states that AES will maintain an active cylinder management program to maintain optimum storage conditions in the cylinder yard and will monitor the integrity of the cylinders stored in the storage pad. Cylinders are stored on concrete saddles (or saddles comprised of other suitable material) that do not cause cylinder corrosion and the

saddles will be placed on a stable concrete surface. The cylinders are re-inspected annually for damage or surface coating defects, corrosion, valve integrity, damage, leaks, etc. Further details are contained in the ER and are also discussed in section 2.1.5 (Depleted Uranium [(DU)] Management) of the FEIS. Any signs of leakage discovered on the cylinder during these inspections would result in an investigation of the cause and a corrective action plan to correct the situation.

> The history of UF_6 cylinders in storage has shown that past small leaks of UF_6 cylinders caused by improper handling and storage were self sealing because a UF_4 hydrate plug forms at the point of leakage. DOE/EIS-0269, Final Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of [DUF_6], Appendices B (Exh. AES000075) and D (Exh. AES000076). This makes it very unlikely for a "small but continuous" leak of UF_6 to occur from a cylinder.

AES Initial Environmental Questions Response at 7-8.

4.98 Additionally, in environmental question 12(a), the Board inquired about the likelihood that small but continuous leaks would be detected by either the AES effluent monitoring or radiological environmental monitoring systems. *See* Initial Board Initial Environmental Questions attach. A, at 5. In its response, AES maintained:

> Even though small but continuous leaks from a UF_6 cylinder are very unlikely as discussed in the response to Question 12[(a)] above, it is likely that any such leaks would be detected by both the effluent monitoring and the radiological environmental monitoring systems.
>
> Monitoring is conducted for uranium from [UF_6] or its uranium reaction products. The radiological environmental monitoring program is designed to detect uranium in the environment using isotopic analysis. The detection levels are 2% or less of the limits in 10 C.F.R. Part 20 Appendix B, Table 2 (Effluent Concentrations). Vegetation, groundwater, soil, and water contained in the basins are included in this monitoring program.
>
> Hydrogen fluoride is a non-uranium reaction product of [UF_6] produced when UF_6 reacts with moisture in the air. Hydrogen fluoride gas is absorbed in the moisture to form aqueous hydrofluoric acid which will eventually fall to the ground or on water. U.S. Department of Health and Human Services, Toxicological Profile Fluorides, Hydrogen Fluoride, and Fluorine (September 2003) (Exh. AES000077).
>
> In water, fluorides associate with various elements present in the water and settle into the sediment where they are strongly attached to sediment particles. When deposited on land, fluorides are strongly retained by soil, forming strong associations with soil components. Leaching removes only a small amount of fluorides from soils. Fluorides may be taken up from soil and accumulate in plants, or they may be deposited on the upper parts of the plants in dust.
>
> The effluent monitoring program (physiochemical sampling) monitors soil, sediment, and vegetation for fluoride uptake using analyses methods that meet the [EPA's] Lower Limits of Detection.

> Small but continuous leaks from cylinders are likely to produce increasing concentrations of uranium and fluorides in environmental samples. As stated in the ER, AES will submit annual summary reports of the environmental sampling programs and associated data to the proper regulatory authorities. The report will note any increasing trends in the data and identify the actions taken in response to those trends.

AES Initial Questions Response at 8-9.

4.99 With these answers in mind, and given the importance of the facility's monitoring programs in ensuring that any radiological impacts from the facility are promptly identified, assessed, and mitigated, the Board asked for the following presentation from the parties:

> Please provide a presentation regarding the staff's FEIS-related analysis of the AES [effluent and environmental monitoring programs] that includes a detailed discussion of the following:
>
> a. A summary of the features of the [AES effluent and environmental monitoring programs], including monitoring of any storage cylinders in the cylinder storage pad area;
>
> b. How the staff has determined that the types of effluents monitored and the number, type, detection limits, and locations of monitoring equipment are sufficient;
>
> c. How the staff ascertained that the [AES effluent and environmental monitoring programs'] features are adequate for the EREF construction, operation, and decommissioning phases and for normal and off normal (accident, extreme weather, etc.) operation, including whether uranium tetrafluoride (UF_4) hydrate plugs are likely to form to seal small leaks of [UF_6] or its reaction products in storage cylinders; and
>
> d. How the staff will ensure that the [AES effluent and environmental monitoring programs] will be properly implemented, adequately tested, and fully capable during the period from two years before the start of operations to the end of decommissioning.

Board Presentation Topics and Administrative Directives at 5.

b. Witnesses and Evidence Presented

4.100 The lead party for this presentation was also the Staff, whose presentation materials were admitted into evidence. *See* Staff Effluent/Environmental Monitoring Presentation. Testimony on behalf of the Staff was provided by three witnesses, while AES made two witnesses available to answer Board questions. *See* Tr. at 571-622.

(i) STAFF WITNESSES

4.101 Staff witness Karl Fischer, who received a bachelor of science degree in nuclear engineering and a master of engineering degree in radiological health engineering from the University of Michigan, is a health physicist with over 14 years of experience in environmental, defense, and medical/research applications. Mr. Fischer currently is an environmental system engineer with ANL where he provides support to clients in the areas of health physics and radiological health risk, including radiological transportation risk. Prior to joining ANL in 2008, he worked for 3 years as a deputy program manager with Northrop Grumman Information Technology in the Nuclear Test Personnel Review Program operated by the Defense Threat Reduction Agency of the U.S. Department of Defense, and for 8 years prior to that as a health physicist and senior health physicist for the National Institutes of Health, Division of Radiation Safety. *See* Exh. NRC000152, at 1 (Karl Fischer SPQ).

4.102 Staff witness Deborah Seymour testified previously in the AEA safety-related portion of this mandatory hearing and her qualifications and experience were outlined in that decision. *See* LBP-11-11, 73 NRC at 496.

(ii) AES WITNESSES

4.103 AES witness Mark S. Strum received a B.S. degree in nuclear engineering from Lowell Technology Institute, an M.S. degree in radiological sciences and protection from the University of Lowell, and a master of business administration degree from Nichols College. For the past 9 years he has been employed as an advisory engineer with AREVA NP, after serving for 5 years as a project manager with Duke Engineering Services and for 23 years as a senior engineer with Yankee Atomic Electric Company. During his 39 years of performing radiological assessments supporting the design, licensing, and operation of power reactors, his responsibilities have included plant effluent environmental dose assessments; environmental radiological monitoring program evaluations; radwaste processing; storage and disposal assessments; and technical support in the areas of effluent monitoring, radiological effluent technical specifications, and offsite dose calculation manual implementation. *See* Exh. AES000014, at 1-2 (SPQ for Mark S. Strum).

4.104 AES witness Barry M. Tilden received a B.S. degree in mathematics from the U.S. Naval Academy and a M.S. degree in Computer Science from the Naval Postgraduate School. Mr. Tilden has 32 years' experience in the nuclear industry, including serving as EREF plant operations manager for the past 2 years, 3 years as plant manager during the startup phase at the Paducah DUF_6 conversion facility, 9 years in management positions at the USEC PUEF, 8 years as plant lead engineer for license renewal technical evaluations at the Calvert Cliffs Nuclear

Power Plant, and 11 years' experience in the Navy's nuclear propulsion program. *See* Exh. AES000015, at 1-2 (SPQ for Barry Martin Tilden).

4.105 Based on the respective qualifications and experience of the proffered witnesses, the Board finds each of these Staff and AES witnesses qualified to testify regarding the EREF radiological effluent monitoring program.

c. Regulations and Guidance Regarding Effluent and Radiological Environmental Monitoring Programs

4.106 Under 10 C.F.R. Part 20, App. B, and section 70.59, Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment. Although the question of the sufficiency and adequacy of the AES program for radiological effluent monitoring and radiological environmental monitoring was part of the Staff's AEA/safety-related review of the AES application and was addressed in the Staff's SER, *see* Exh. NRC000032, at 9-8 to -13 (NMSS, NRC, [SER] for the [EREF] in Bonneville County, Idaho, NUREG-1951 (Sept. 2010)) [hereinafter SER], in the context of the agency's NEPA responsibility to consider the radiological effects of a proposed action and the alternatives available for reducing or avoiding such impacts, *see* 10 C.F.R. § 51.71(d), an applicant's radiological measurements and monitoring program also is subject to scrutiny.

4.107 And in that regard, two Staff guidance documents set forth the information that should be provided in the ER and the EIS regarding a radiological monitoring program and monitoring program acceptance criteria, *see* Exh. NRC000189, at 5-26, 6-29 to -30 (NMSS, NRC, Environmental Review Guidance for Licensing Actions Associated with NMSS Programs, NUREG-1748 (Aug. 2003)) [hereinafter Staff Environmental Review Guidance]; Exh. NRC000031, at 9-12 to -15 (NMSS, NRC, [SRP] for the Review of a License Application for a Fuel Cycle Facility, NUREG-1520 (Mar. 2002)) [hereinafter Staff Fuel Cycle SRP]; *see also* Tr. at 581-82 (Fischer Test.), while two other Staff guidance documents outline what the Staff believes are acceptable methods for designing a radiological monitoring program and submitting required semiannual reports specifying principal radionuclide releases to unrestricted areas for the purpose of estimating maximum potential annual public doses from such releases, *see* Exh. NRC000208, at 6-16 (Office of Nuclear Regulatory Research (RES), NRC, Quality Assurance for Radiological Monitoring Program, Regulatory Guide [(RG)] 4.15 (rev. 2 July 2007)); Exh. NRC000209, at 3-7, A-1 (RES, NRC, Monitoring and Reporting Radioactive Materials in Liquid and Gaseous Effluents from Nuclear Fuel Cycle Facilities, RG 4.16 (rev. 2 Dec. 2010)); *see also* Tr. at 582-83 (Fischer Test.).

d. Evidentiary Findings

4.108 Radiological monitoring on the EREF site involves two separate but complementary programs. One is the effluent monitoring program or EMP, which concerns the monitoring, recording, and reporting of data for radiological contaminants emitted from specific effluent release points in the facility utilizing media such as exhaust vent air sampler filters, mobile air monitor filters, and evaporator exhaust vent liquid condensate. The other is the radiological environmental monitoring program, which provides a supplemental check of containment and effluent controls by monitoring general environmental media, including soil, sediment, groundwater, biota, and ambient air, both within and outside of the boundaries of the proposed EREF. *See* Tr. at 578, 583, 597 (Fischer Test.); Staff Effluent/Environmental Monitoring Presentation at 7; FEIS at 6-1.

4.109 Neither the EMP nor the REMP are active during the preconstruction or construction phases at the facility because there are no radioactive materials onsite. Nonetheless, to provide a baseline against which to measure in monitoring for any later releases, REMP-related monitoring would begin at least 2 years prior to the receipt of radioactive materials and the beginning of startup operations. *See* Tr. at 584-85 (Fischer Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 8, 14. In the case of the EREF, baseline monitoring has already begun by obtaining more than seventy soil samples and will continue during facility construction, including the characterization of backfill and other nonnative materials that are brought onto the site. *See* Tr. at 585 (Strum Test.). Thereafter, both the EMP and the REMP would become active during preoperational testing and would continue during the EREF's operations phase. Finally, for the facility's decommissioning phase, AES would be responsible for submitting an appropriate radiological monitoring program as part of its decommissioning plan. *See* Tr. at 584, 585 (Fischer Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 8.

4.110 With respect to the EMP, based on the model monitoring program set forth in supplement 1 to the Staff's Generic Letter 89-01, *see* Exh. NRC000210 (Office of Nuclear Reactor Regulation, NRC, Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Boiling Water Reactors, NUREG-1302 (Apr. 1991)), the EMP is intended to confirm the effectiveness of effluent controls and verify that facility operations have no detrimental radiological impact. To accomplish this end, all potential radioactive effluents can be discharged from the facility only through monitored pathways and AES would be required to undertake continuous sampling for airborne and liquid effluents at those points where it is authorized to make such discharges. *See* Tr. at 586, 591-92 (Fischer Test.); FEIS at 6-6, 6-7; *see also* Staff Effluent/Environmental Monitoring Presentation at 9.

4.111 For the nine EMP airborne discharge points — six gaseous effluent

ventilation systems in the separations building, the technical services building, and the centrifuge test and postmortem facilities; the heating/ventilation/air conditioning systems in the blending, sampling, and preparation building ventilated room and the technical support building contaminated area; and the centrifuge test and port mortem facility exhaust filtration system — continuous alpha and hydrogen fluoride (HF) monitoring would occur. Regarding industrial liquid effluents, in addition to the fact that the EREF will not be connected to any publicly owned water treatment works, no discharges would be permitted to natural surface waters or to the ground. Instead, all liquid process effluents would be collected by the facility's liquid effluent collection and treatment system. Effluent releases would only occur by means of an evaporator after multiple stages of precipitation and filtration, with sampling at the evaporator exhaust vent to ensure no uranic releases have occurred. *See* Tr. at 586, 592-93 (Fischer Test.); FEIS at 6-2, 6-4 to -5, 6-7; Staff Effluent/Environmental Monitoring Presentation at 9-11.

4.112 AES would submit EMP monitoring reports to the NRC semiannually. The airborne and effluent monitoring samples would be subjected to weekly gross alpha/beta analysis and quarterly isotopic composite analysis. Isotopic analysis for uranium would only be performed if gross alpha/beta activity indicated that an individual radionuclide would be present in a concentration greater than 10% of the concentrations specified in table 2 to appendix B to 10 C.F.R. Part 20. *See* Tr. at 593 (Fischer Test.); Staff Effluent/Environmental Monitoring Presentation at 12.

4.113 Relative to the REMP, which also is based on the model monitoring program outlined in the Staff's Generic Letter 89-01, supplement 1, the focus of those monitoring efforts generally would be within 3 miles of the facility, but may include more distant locations as appropriate. Sampling locations are chosen based on identified exposure pathways, such as direct exposure to a ground plume, inhalation from a plume, or ingestion of food products. Although there is no regulatory requirement governing environmental monitoring program reporting, AES has committed to semiannual reporting, consistent with that applicable to the EMP. *See* Tr. at 597 (Fischer Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 14.

4.114 Given airborne particulates are anticipated to be the primary effluents from the EREF, the main component of the REMP is continuous particulate air monitoring. In accord with Generic Letter 89-01, supplement 1, AES will conduct monitoring at five or more stations. Three stations will be on the site boundary in the wind sectors with the highest calculated or predicted annual average ground level concentration (which is a function of the wind rose, wind speed, wind direction, distance to the boundary fence line, and release point height); one station will be in the vicinity of a community having the highest calculated or predicted annual average ground level concentration; and one station will be at a control location at a distance of more than 5 miles from the facility in the

upwind or nonprevailing wind sector not in the vicinity of any other radiological facility. Monitoring samples will be retrieved at least biweekly, although more frequent retrieval may be required during periods of heavy dust concentration. Gross alpha/beta analysis will be performed weekly, with quarterly isotopic analysis on a composite sample. Because there are no communities or residences within 5 miles of the facility footprint, the community location will be at the site boundary in the same sector as the nearest residence, which is approximately 5 miles east of the facility. *See* Tr. at 598-99 (Fischer Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 15, 21.

4.115 Groundwater monitoring is a second major REMP component. Again following the guidance from Staff Generic Letter 89-01, supplement 1, AES will install monitoring wells at eight locations based on the predominant northeast to southwest direction of groundwater flow under the EREF site. Two of the eight groundwater monitoring locations will be upgradient of the facility to service as control sites, while two wells would be located so as to monitor unexpected leakage from the stormwater detention and retention basins. In addition, after operations begin, two deep aquifer wells would be installed to the west and south of the facility footprint. Isotopic analysis for uranium would be performed semiannually. *See* Tr. at 599-600 (Fischer Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 16, 21.

4.116 Additional REMP components are the stormwater and basin sediment sampling stations, which provide monitoring for the site stormwater detention basin and the two cylinder storage pad retention basins. Under normal operations, stormwater would be collected in the site stormwater detention basin, which is unlined and would release water by both evaporation and infiltration into the ground. Because the site stormwater detention basin would only receive runoff from paved surfaces, roofs, and landscape areas, not including the cylinder storage pads, it is not expected that this approach will result in a significant release of uranic material. In contrast, the cylinder storage pad retention basins, which would be lined to prevent infiltration and would have no outlets, will be designed to have the capacity to hold all in-flows for the life of the facility. A major component of the "evaporation outlet only" planning for these basins is the expectation that they will be dry for up to 5 months of the year, i.e., June through October, notwithstanding the fact they also are to receive treated domestic sanitary effluent.[31] Further, consistent with Staff Generic Letter 89-01,

[31] The EREF Domestic Sanitary Sewage Treatment Plant is to receive only domestic sanitary wastes and no plant process-related effluents. This treated domestic sanitary sewage thus is not expected to contain any uranic content. Nonetheless it will be directly monitored under the EMP when it is released to the lined cylinder storage retention basins, with samples collected for semiannual uranium isotopic analysis. Moreover, this treated domestic sanitary sewage would again be monitored through

(Continued)

supplement 1, stormwater and basin sediment would undergo quarterly uranium isotopic analysis. *See* Tr. at 600-01 (Fischer Test.); FEIS at 4-42 to -43, 6-8 to -9; *see also* Staff Effluent/Environmental Monitoring Presentation at 17, 21.

4.117 Also as part of the REMP, AES will conduct soil and vegetation sampling. Initially, prior to startup there will be baseline samples, including crops and grass as available, that will be collected in the same vicinity in each of the sixteen compass rose sectors around the facility near the fence line. After startup, operation samples will be collected from each of eight sector locations, including three of the sectors with the highest predicted atmospheric deposition, *see supra* p. 569, and one offsite control location. Samples will undergo semiannual uranium isotopic analysis. *See* Tr. at 603-04 (Fischer Test.); FEIS at 6-10; *see also* Staff Effluent/Environmental Monitoring Presentation at 19, 21.

4.118 In addition to the environmental media sampling described above, the REMP will include direct exposure gamma radiation monitoring to assess any offsite dose that might result from the stored UF_6 cylinders or other facility operations. Thermoluminescent dosimeters (TLDs), which will be deployed at the fence line in all sixteen compass sectors, would be utilized for quarterly testing to estimate the offsite dose equivalent associated with gamma radiation through extrapolation of the dosimeter data using a Monte Carlo N-Particle or similar computer program. Moreover, two offsite control TLDs would provide information on changes in regional background radiation levels. *See* Tr. at 604-05 (Fischer Test.); FEIS at 6-10; *see also* Staff Effluent/Environmental Monitoring Presentation at 20, 21.

4.119 Also in connection with the various AES REMP monitoring efforts, the location modeling for which was checked by the Staff, *see* Tr. at 607, AES will submit a semiannual summary report to the NRC that would include the types, numbers, and frequencies of environmental measurements and the identities and concentrations of EREF-related radionuclides found in the various environmental samples. Among other things, this report would provide the minimum detectable concentrations (MDCs) for the monitoring analyses and the error associated with each measurement. Following Staff Generic Letter 89-01, supplement 1 guidance, sampling instrumentation and methodologies must be capable of attaining specified MDCs to ensure that sampling and analytic methods are sensitive enough to support the appropriate action levels specifying when, if those levels are exceeded, an investigation is started into the source of

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the REMP basin and sediment sampling process. *See* Tr. at 601, 603 (Fischer Test.); FEIS at 6-7 to -9; *see also* Staff Effluent/Environmental Monitoring Presentation at 18. Also, in response to a Board question about whether the combination of domestic sanitary sewage runoff into the cylinder storage retention basin and the likelihood of steady evaporation from that basin would so dilute cylinder pad runoff as to mask a cylinder radiation leak from detection, the Staff cited basin sediment sampling as a monitoring technique that would detect such contamination. *See* Tr. at 602-03 (Biwer Test.).

the elevated radioactivity and/or process operations would be shut down.[32] *See* Tr. at 580, 605, 608 (Fischer Test.); FEIS at 6-5, 6-6, 6-7, 6-9, 6-10, 6-11; *see also* Staff Effluent/Environmental Monitoring Presentation at 23.

4.120 Finally, although not an explicit part of either its EMP or REMP programs, AES will implement a monitoring and management program for the UF_6 storage cylinders stored on the EREF site. As was noted previously, stormwater runoff from the storage pads on which these casks would be placed would be captured, retained, and monitored periodically for uranic releases from the two cylinder storage pads stormwater retention basins (along with the domestic sewerage effluents). Further, external/direct radiation exposures will be measured using the TLDs along the facility fence line. These monitoring efforts also will be supplemented by a cylinder management program. Prior to placing a storage cylinder on the storage pad or transporting a cylinder offsite, AES would inspect the cylinder for damage and survey it for external contamination. There would also be an annual AES inspection of each cylinder's anticorrosion layer to ensure that exterior corrosion or mechanical damage is spotted and addressed. If such an inspection revealed significant cask deterioration, in addition to a root cause determination effort that might involve additional cask inspections, the contents of the defective cask could be transferred to another cask, after which the defective cask would be discarded. *See* Tr. at 594-95 (Fischer Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 13.

4.121 NRC inspections of the EFEF facility, which will be conducted out of the agency's Region II office in Atlanta, Georgia, will include verification that AES has implemented its EMP and REMP monitoring efforts in compliance with agency regulations and license requirements regarding processing, control, and release of radioactive liquids and airborne effluents as well as directives governing environmental sampling, including soil, vegetation, and air sampling, and information reporting. This inspection program is intended to ensure that any radiation release has a minimal impact on the public and the environment and that AES adequately implements its radiological monitoring programs. *See* Tr. at 615-16 (Seymour Test.); Staff Effluent/Environmental Monitoring Presentation at 28.

4.122 In accord with agency inspection manual (IM) inspection procedure 88045, Staff inspections of AES radiological monitoring will have a number of

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[32] Per the Staff's fuel cycle facility SRP, MDCs for gaseous effluent and evaporator condensate must be 5% or less of the concentrations listed in 10 C.F.R. Part 20, App. B, tbl. 2, while those for environmental monitoring of sediment, soil, and vegetation should be at least as low as those selected for effluent monitoring of air and water. *See* Tr. at 608 (Fischer Test.); FEIS at 6-5, 6-7; *see also* Staff Effluent/Environmental Monitoring Presentation at 23; Exh. NRC000070, at 9-12 (NMSS, NRC, [SRP] for the Review of a License Application for a Fuel Cycle Facility, NUREG-1520 (rev. 1 May 2010)).

areas of emphasis, including management controls, which covers how program implementation responsibilities are assigned and internal audits/inspections are conducted; analytical measurement quality control; monitoring/sampling station location and instrumentation; monitoring program recordkeeping and reporting; compliance with liquid and airborne effluent procedures and license requirements; problem identification and resolution; and program changes. Further, at any one time, the focus of the agency's radiological monitoring inspection regime, both as to the AES radiological monitoring program's design/planning and implementation, will depend on what is needed given the functional status of the EREF. *See* Tr. at 616-17 (Seymour Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 29, 31; Exh. NRC000212, at 1-3 (NMSS, NRC, NRC [IM], Inspection Procedure 88045 (Sept. 5, 2006)).

4.123 The agency's initial radiation monitoring program-associated inspections will precede facility receipt of special nuclear material (SNM) and the start of hot acceptance testing (i.e., startup testing of the facility's operational status performed with a small amount of natural UF_6), which means inspections generally start 1 year prior to the applicant's construction and testing-related scheduling estimate of the start of facility operation. These inspection findings could impact AES's ability both to receive SNM onsite at the EREF and perform hot functional testing prior to implementing any identified corrective measures for significant issues. *See* Tr. at 618-19 (Seymour Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 29, 31.

4.124 The onset of EREF operations would provide the next major implementation milepost for the agency's radiation monitoring program inspection process. Per a license condition, *see* LBP-11-11, 73 NRC at 502-03 , prior to permitting EREF operation, the agency will conduct an operational readiness review (ORR) inspection that, in addition to confirming the readiness of operational safety programs such as nuclear criticality and radiation safety, will include inspections to ensure the AES radiological monitoring program has been implemented adequately. Once again, inspection findings identifying significant issues would affect NRC authorization for EREF operations pending AES implementation of acceptable corrective measures. *See* Tr. at 619-20 (Seymour Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 32.

4.125 Assuming operational authorization is given, under NRC Inspection Manual Chapter (IMC) 2600, the NRC inspection program associated with radiological monitoring would continue on an annual basis as part of the baseline inspection program for the EREF through facility decommissioning, as needed. If these inspections, which are intended to ensure continued effective program implementation, identified significant issues, additional inspection resources may be allocated to verify appropriate issue resolution. *See* Tr. at 620 (Seymour Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 33; Exh.

NRC000213, at 5 (NMSS, NRC, NRC [IM], Manual Chapter 2600 (Jan. 27, 2010)).[33]

e. Board Conclusions Regarding Effluent and Radiological Environmental Monitoring Programs

4.126 The Board finds, as outlined below, that in responding to the Board's request for information on the status of the radiological monitoring program for the EREF, the Staff and AES provided both a comprehensive overview of the AES monitoring program and the corresponding Staff inspection regime as well as specific information that addressed adequately several particular topics of Board interest.

4.127 Relative to the Staff's general environmental review efforts, the Staff points out that the AES provided in its ER information on the various items that the Staff's guidance for applicant preparation of nuclear materials-related environmental assessments should contain, including maps/aerial photographs of the site with effluent release points along with proposed monitoring and sampling locations clearly identified; a description of the principal radiological exposure pathways; the location and characteristics of radiation sources and radioactive effluents, both liquid and gaseous; a detailed description of the monitoring program including number and location of sample collection points, measuring devices used and pathways sampled or measured, sample size, sample collection frequency and sampling duration, method and frequency of analysis including lower limits of detection; a discussion justifying the choice of sample locations, analyses, frequencies, durations, sizes and lower limits of detection; and quality assurance procedures. We find these subject matter areas, which are pertinent to the Staff's environmental review of the applicant's radiation monitoring program, to be adequately outlined and analyzed in the Staff's FEIS as well. *See* Tr. at 609-10 (Fischer Test.); FEIS at 6-1 to -11; *see also* Staff Effluent/Environmental Monitoring Presentation at 24-25; Staff Environmental Review Guidance at 6-30.

4.128 Also covered by AES and the Staff during their presentations were several specific Board concerns regarding radiation monitoring under off-normal conditions and monitoring of stored DUF_6 cylinders. Relative to off-normal conditions, such as accidents or extreme weather, in response to a Board question

[33] The Board observes that, although not included as part of exhibit NRC000213, page B-6 of appendix B to IMC 2600 specifies that a core inspection requirement for a gas centrifuge facility is an annual effluent control/environmental inspection that would be conducted under IP 88045. Additionally, the Board notes that although IMC 2635, the particular IMC applicable to the EREF, still has not been finalized, the Staff contemplates that IMC will be issued in advance of any safety-related construction at the facility or, alternatively, that the Staff would use IMC 2696, the IMC for the LES NEF, as a substitute. *See* Tr. at 621-22 (Seymour Test.); *see also* LBP-11-11, 73 NRC at 509-10.

about the ability of the monitoring system to give a warning of incipient off-normal conditions, Staff witness Fischer declared that this is the purpose of establishing the action levels that are associated with environmental monitoring. *See* Tr. at 580 (Fischer Test.). And with regard to a Board question about whether, during the winter months, snow would be sampled in addition to soil, AES witness Strum testified that AES has no plans to conduct such tests as part of its routine monitoring program. He nonetheless indicated (without Staff contradiction) that if any radioactive effluent deposition occurred during the winter months as a result of snow falling and scavenging any radioactive materials out of the air, the deposition would tend to stay with the snow as it melted, thereby permitting AES to pick up the disposition in routine soil sampling so that it would not go undetected. *See* Tr. at 605-06 (Strum Test.).

4.129 In response to a Board concern about whether the concrete pads on which the cylinders are stored need to be lined and subject to a special inspection to ensure there is not cracking that would permit effluents from leaking casks to reach the ground, AES testified that the potential for cylinder storage yard contamination does not warrant sealing the pads or the piping leading to the cylinder storage pad stormwater retention basins, or leak checking the lined basins themselves. Instead, citing DOE's enrichment program under which DUF_6 cylinders are only inspected every 4 years (unless they are "known bad actors," in which case they receive an annual inspection), AES indicated (without Staff contradiction) that annual cylinder inspections would be sufficient to ensure any issues are addressed before contamination could get to the pad or beyond. *See* Tr. at 596 (Tilden Test.).

4.130 Also of interest to the Board in connection with storage cylinder leakage and monitoring was further information on the possible formation of UF_4 hydrate plugs to seal small cylinder leaks of UF_6 or its reaction products. In his testimony, Staff witness Fischer supported the formation of such plugs, citing the DOE experience associated with eight breached cylinders — five by mechanical damage during stacking, two by external corrosion from ground contact, and one during maintenance operations — at three storage sites — Oak Ridge, Tennessee, Paducah, Kentucky, and Portsmouth, Ohio — through 1998. According to Staff witness Fischer, it could be expected that a UF_6 storage cylinder breach eventually would permit enough moist air to react with exposed UF_6 and iron to form a dense plug consisting of iron fluoride hydrates to prevent a rapid loss of cylinder material. *See* Tr. at 610-11 (Fischer Test.); *see also* Staff Effluent/Environmental Monitoring Presentation at 26; Exh. NRC000211, at B-1 to -4 (2 Office of Nuclear Energy, Science and Technology, DOE, Final Programmatic [EIS] for Alternative Strategies for the Long-Term Management and Use of Depleted [UF_6], DOE/EIS-0269 (Apr. 1999)). Further, Staff witness Biwer declared, while the relatively low humidity that might be expected at the southeastern Idaho EREF high desert site during the summer likely would slow this process, it nonetheless will occur. Nor

would the relative size of what are generally extremely small leaks make much difference, according to Staff witness Biwer, because (1) the corrosion process that would form the type of nonbreach leak (i.e., one not involving an accidental drop or piercing) that could be stoppered using this method is itself a slow process that would allow for UF_4 oxidation plugging on an ongoing basis; and (2) in such a low-humidity circumstance, the same lack of moisture that would slow plug formation would also retard the formation of the hydrogen fluoride that would be a danger to workers, thus providing time for the hydrate plug to form or for AES to plug the cylinder. *See* Tr. at 611-13 (Biwer Test.).

4.131 Based on the foregoing, the Board finds that the Staff sufficiently supports its conclusions regarding the adequacy of the AES effluent and environmental radiation monitoring programs in both logic and fact. Moreover, the record, including the Staff's FEIS as supplemented by all adjudicatory materials in this proceeding, indicates that the Staff's review of effluent and environmental radiation monitoring has been adequate pursuant to 10 C.F.R. Part 51 and supports issuance of the proposed license.

6. Historic/Cultural Resources Memorandum of Agreement and Associated Mitigation Measures

a. Introduction

4.132 Because AES preconstruction activities were likely to result in destruction of the National Register of Historic Places (NRHP)-eligible John Leopard Homestead site located within the boundaries of the proposed facility, AES prepared a treatment plan outlining how it would mitigate the impact of the homestead site's destruction by utilizing professional excavation and data recovery prior to disturbing the site. The Idaho State Historical Preservation Office (SHPO) later approved the excavation and data recovery aspects of the AES treatment plan and the Leopard Homestead site excavation work was completed. Nonetheless, SHPO authorization for AES to conduct preconstruction activities at the homestead site has been withheld pending completion of a consultation process among the Staff, SHPO, the Shoshone-Bannock Native American tribes, and AES intended to result in a memorandum of agreement (MOA) addressing how historic and cultural resource matters will be handled at the EREF site as construction goes forward. *See* FEIS at 4-6.

4.133 In response to environmental question 20, in which the Board requested an update on the status of the MOA, *see* Board Third Environmental Questions app. A, at 1, the Staff stated:

> Regarding the status of the MOA, the MOA has not yet been finalized. Comments on the Draft MOA have been received from the Idaho [SHPO] and AES. However,

> on May 11, 2011, the Cultural Resources Coordinator of the Shoshone-Bannock Tribes requested an additional 2 to 3 weeks to review the Draft MOA and present it to the Tribal Business Council, after which the Tribes could provide comments on the Draft MOA. Since this was a reasonable request, the staff agreed to allow the Tribes the additional time for the review. After the Tribes' comments are received, the staff will determine whether a teleconference is needed to discuss and resolve the comments among the parties to the agreement. After all comments have been resolved and agreed upon, the staff will incorporate the comments and will circulate the Final MOA for signature by the parties.
>
> The staff's current goal is for the MOA to be completed and executed prior to the July 12-14, 2011, mandatory environmental evidentiary hearing, but if not, then by the time the Atomic Safety and Licensing Board (ASLB) issues the Partial Initial Decision (PID) on environmental issues on September 23, 2011.

Staff Third Environmental Questions Response at 1.

4.133a As a consequence, the Board requested that the parties provide the following presentation:

> Please provide a presentation that discusses the current status of the historic/cultural resources [MOA] that is being developed by means of consultation among the staff, the Idaho [SHPO], the Shoshone-Bannock Tribes, and AES, including an overview of the draft MOA-referenced September 2009 monitoring and discovery plan that AES has proposed implementing to provide mitigation measures to address any additional historic or cultural resources that might be found during preconstruction/construction, operation, and decommissioning of the EREF. In the event the MOA has been finalized by the time of the presentation, please include an overview of the MOA's terms and conditions.

Board Presentation Topics and Administrative Directives at 5-6.

b. Witnesses and Evidence Presented

4.134 The lead party for this presentation was also the Staff, whose presentation materials were admitted into evidence. *See* Exh. NRC000214 (Staff Presentation for Topic 6, Historic/Cultural Resources Memorandum of Agreement and Associated Mitigation Measures) [hereinafter Staff MOA Presentation]. Staff testimony was provided by two witnesses. *See* Tr. at 622-41. AES did not make a presentation regarding this topic or make available any witnesses for Board questions.

4.135 The background and qualifications for Staff witness Stephen Lemont were set forth previously in section IV.A.1.b(ii), *supra.*

4.136 Staff witness Daniel O'Rouke received a B.A. in history and anthropology from Michigan State University and an M.S. in industrial archaeology

from Michigan Technological University. Mr. O'Rourke, an archaeologist with over 20 years of professional experience, has worked since 2001 at ANL, where he currently serves as an assistant environmental scientist (Archaeologist) in the Ecological and Geographical Sciences Section of the Environmental Science Division at ANL. His duties include developing/synthesizing historic contexts and assessing project impacts in EISs; preparing historical building evaluations and documentation reports; conducting archaeological surveys; conducting visual impact assessments; and evaluating land use impacts. Prior to joining ANL, he provided technical project support for various cultural resource firms on projects for clients such as the University of Chicago, the National Forest Service, and private developers. *See* Exh. NRC000156, at 1 (Daniel J. O'Rouke SPQ).

4.137 Based on the respective qualifications and experience of the proffered witnesses, the Board finds each of these Staff witnesses qualified to testify regarding the historic/cultural resources MOA and associated mitigation measures.

c. Regulations and Guidance Regarding Historic/Cultural Resources Memorandum of Agreement and Associated Mitigation Measures

4.138 The National Historic Preservation Act of 1966 (NHPA), 16 U.S.C. § 470, requires that all adverse effects to any NRHP-eligible historic or cultural resource be considered during any federal undertaking, such as an NRC licensing action for a proposed uranium enrichment facility. NRC fulfills its responsibilities under the NHPA in the context of the historical and cultural resources impact assessment that is part of its NEPA environmental review. *See* Staff Environmental Review Guidance at 1-7 to -8. An historical/cultural resource is considered eligible for listing on the NRHP if it meets one or more of the following criteria: (1) association with an historic person; (2) association with an historic event; (3) representation of the work of a master; or (4) potential to provide information on the history or prehistory of the United States. *See* 36 C.F.R. § 60.4. Further, under NHPA § 106, the area of potential effect (APE) of the federal undertaking must be designated, e.g., the area directly affected by preconstruction/construction of a proposed facility, and the lead federal agency associated with the undertaking must conduct a consultation with the SHPO regarding the presence and protection of historic and cultural resources in the designated APE, as well as any federally recognized Native American groups with an ancestral interest in the property, to determine if resources important to the tribe are present. *See* FEIS at 4-5.

d. Evidentiary Findings

4.139 Review of the EREF site under NHPA § 106 resulted in a significant portion of the proposed EREF being subject to examination by an AES archae-

ological contractor. In addition to examining the 592-acre APE that would be directly impacted by preconstruction and construction activities, the archaeological contractor studied an additional 413 acres of the site for historical and cultural resources. These surveys identified thirteen archeological sites and twenty-four isolated finds within the APE. One of the sites, the John Leopard Homestead, was recommended as eligible for listing in the NRHP because of its potential to provide information on regional historic era homestead farming practices, a designation concurred in by the Idaho SHPO. *See* FEIS at 4-5 to -6.

4.140 With AES preconstruction activities associated with a security fence and a proposed transmission line to bring power into the EREF likely to result in destruction of the Leopard Homestead site, AES prepared a treatment plan outlining how it would mitigate the impacts of the homestead site's destruction by utilizing professional excavation and data recovery prior to disturbing the site. The Idaho SHPO later approved the excavation and data recovery aspects of the AES treatment plan and AES provided the site data report to the SHPO following completion of excavation work on the Leopard Homestead site. AES also submitted to the SHPO a monitoring and discovery plan that specifies the procedures for addressing and handling the unexpected discovery of human remains or archaeological material at the proposed EREF. Idaho SHPO approval of the AES request to be permitted to conduct preconstruction activities at the homestead site nonetheless has been withheld pending completion of an NHPA § 106 consultation process among the Staff, the Idaho SHPO, the Shoshone-Bannock Native American tribes, and AES intended to result in an MOA that, among other things, addresses the completed mitigation of the Leopard Homestead site and references the AES monitoring and discovery plan. *See id.* at 4-7.

4.141 The Staff initially determined the historical/cultural resource impacts associated with the Leopard Homestead site would be LARGE because the homestead site would no longer exist given its destruction by the anticipated preconstruction activities. Yet, because the site was professionally excavated prior to ground disturbance and a report was prepared on the data recovered and because other examples of this particular homestead site type are found in the region, the Staff reduced its impacts finding to MODERATE, with the impacts to other historical/cultural resources associated with the EREF site considered to be SMALL. *See id.* at 4-7.

4.142 Moreover, to further palliate any historical/cultural resource impacts at the EREF site, a monitoring and discovery plan was developed for AES by the same professional archaeology firm that conducted the Leopard Homestead site excavation. That plan outlines additional mitigation measures that would be implemented, if needed, as preconstruction and construction go forward. The monitoring and discovery plan provides direction on how known archaeological and historic resources are to be protected and how unexpected discoveries that might be encountered, such as human remains or archaeological materials, should

be handled. To this end, the monitoring and discovery plan provides for an AES chosen-and-paid cultural resources monitor (or monitors) whose qualifications must meet or exceed the Secretary of the Interior's professional qualification standards for archaeology. Under the monitoring and discovery plan, the monitor will work closely with construction personnel to ensure that any already documented significant historical/cultural sites on the EREF property are not adversely impacted by preconstruction/construction activities. Further, for any previously undocumented cultural resources exposed by ground-disturbing activities, the monitor is responsible for properly identifying and documenting those resources, evaluating their potential for NRHP listing status, and recommending treatment for any that qualify as historic properties. The monitoring and discovery plan also provides that a member of an interested Native American tribe, which in the case of the EREF site would be a member of the Shoshone-Bannock tribes, can be present with the monitor as necessary. Further, under the monitoring and plan, in the event of an unanticipated discovery, the monitor would inform the Idaho SHPO, AES, the NRC, and the Shoshone-Bannock tribes so that any decisionmaking regarding the discovery can be coordinated. *See* Tr. at 630-34 (Lemont Test.); *see also* Staff MOA Presentation at 5-6; Exh. NRC000215, at 2-3 (Western Cultural Resource Management, Inc., Archaeological Monitoring and Discovery Plan for the [EREF, AES], in Bonnville County, Idaho (Sept. 17, 2009)) [hereinafter Monitoring and Discovery Plan].

4.143 In terms of the specific procedures under the monitoring and discovery plan that are to be used by the monitor to carry out his or her responsibilities, the monitor will conduct instructional briefings for all construction workers on monitoring procedures and requirements. This includes training the workers on the types of material that could be found that would be indicative of human remains or an archaeological site so that the workers can assist the monitor in identifying any unexpected human remains or cultural material. The monitor will also ensure that all known significant archaeological sites and all archaeological sites that have not been evaluated for significance are marked and avoided during ground-disturbing activities. Additionally, whenever ground-disturbing activities are going on, the monitor will observe whether those activities are being carried out pursuant to the monitoring and discovery plan and will maintain a log of ground-disturbing activities in the vicinity of documented sites and of previously unknown but discovered sites. The monitor would notify the supervisor or project lead supervisor at the site of any ground-disturbing activities that are contrary to the plan and has the authority to order that work cease, if necessary. *See* Tr. at 634-35 (Lemont Test.); *see also* Staff MOA Presentation at 7; Monitoring and Discovery Plan at 3-4.

4.144 If a discovery of human remains is made, under the monitoring and discovery plan all ground-disturbing activity within 100 feet is to cease immediately and the monitor will document the discovery and contact the Idaho

SHPO, NRC, AES, and, if a discovery is of tribal significance, a representative of the Shoshone-Bannock tribes. Additional ground-disturbing activities in the vicinity of the site will not be allowed until appropriate consultations and reviews have been completed, including fulfilling any Idaho legal requirements associated with reporting and preserving human remains. *See* Tr. at 635-36 (Lemont Test.); *see also* Staff MOA Presentation at 8; Monitoring and Discovery Plan at 5-6.

4.145 For the discovery of new archaeological material, utilizing his or her professional judgment and the information gained via consultations with the Idaho SHPO and the Shoshone-Bannock tribes, as necessary, the monitor will decide on the appropriate treatment for a new discovery, including determining whether construction within 100 feet can resume or must be suspended pending further study. When new archaeological material is discovered, the monitor will inspect, characterize, and document the discovery; determine potential NHRP eligibility; and coordinate with the Idaho SHPO, AES, NRC, and the Shoshone-Bannock tribes. If the site is determined to be NHRP listing-eligible, data recovery and other measures designed to mitigate any impacts would be implemented. *See* Tr. at 636-37 (Lemont Test.); *see also* Staff MOA Presentation at 9; Monitoring and Discovery Plan at 6-8.

4.146 The AES monitoring and discovery plan was presented to the Idaho SHPO and is referenced in the pending, Staff-prepared March 2011 draft MOA regarding the treatment of historic/cultural resources on the EREF site. *See* FEIS at 4-6. Relative to that MOA, to ensure the agreement complies with NHPA § 106, the Staff does not intend to issue any 10 C.F.R. Part 70 license authorizing the construction and operation of the EREF before the MOA is executed by signatories AES, the Idaho SHPO, and the NRC. In addition, the assent of the Shoshone-Bannock tribes has been sought as a concurring party to the MOA. The draft MOA was provided to AES, the Idaho SHPO, and the Shoshone-Bannock tribes for review and comments on the draft MOA have been received from the Idaho SHPO and AES. Further, in early June 2011, the Shoshone-Bannock tribes cultural resources coordinator advised the Staff that she completed her review of the draft MOA and had no comments, but that the draft must still undergo legal review and be presented to the tribal business council. *See* Tr. at 626-27 (Lemont Test.); *see also* Staff MOA Presentation at 3.

4.147 The fully executed copy of the final MOA and related documentation will be filed with the federal Advisory Committee on Historic Preservation (ACHP), which would fulfill the requirements of NHPA § 106 and permit a Part 70 license to be issued for the proposed EREF. *See* Tr. at 627 (Lemont Test.); *see also* Staff MOA Presentation at 4.

e. Board Conclusions Regarding Historic/Cultural Resources Memorandum of Agreement and Associated Mitigation Measures

4.148 The information provided by the Staff in response to the Board's request for a presentation regarding the status of the historical/cultural MOA for the EREF site afforded the Board a clear understanding of the current status of the MOA and the AES monitoring and discovery plan that is proposed to address handling any additional historical/cultural finds during facility preconstruction/construction. Also, as outlined by its presentation, the Staff's commitment to have the MOA executed by the signatory parties, with concurrence by the Shoshone-Bannock tribes if possible, prior to issuance of any Part 70 license to construct and operate the EREF is a reasonable approach to ensure compliance with the requirements of NHPA § 106.[34]

4.149 Based on the foregoing, the Board finds that the sufficiency of the Staff's FEIS historical/cultural impacts analysis has been adequately supported in both logic and fact and that the record, including the Staff's FEIS as supplemented by all evidentiary materials in this proceeding, establishes that the Staff's review of historical/cultural impacts has been adequate pursuant to 10 C.F.R. Part 51 and supports issuance of the proposed license.

B. Additional Items

1. Environmental Topics Raised by the Board but Not Addressed at the Evidentiary Hearing

4.150 As was noted previously, following issuance of the Staff's FEIS, the

[34] In response to a September 7, 2011 request for a status report on the MOA, *see* Licensing Board Memorandum and Order (Requesting Status Report Regarding Memorandum of Agreement) (Sept. 7, 2011) at 2, on September 14, 2011, the Staff provided the Board with a letter stating that required signatories — the NRC, AES, and the Idaho SHPO — have signed the final MOA and that, consistent with 36 C.F.R. § 800.6(b)(1)(iv), the Staff will submit a copy of the executed MOA to the ACHP. The letter also indicated that after trying by telephone and e-mail to reach the Shoshone-Bannock tribes, as an invited concurring party to the MOA, because the tribes have not replied to the Staff with comments on the draft MOA or with a notification that they have no comments, by letter dated September 1, 2011, the Staff sent a copy of the final MOA to the tribes and requested the tribes to sign the final MOA as an invited concurring party should they desire to do so. The Staff stated that as of its status report, it had has not received any communication from the tribes in response to this letter. *See* Letter from Marcia J. Simon, Staff Counsel, to Licensing Board (Sept, 14, 2011) at 1. Accompanying the letter was a copy of the final executed MOA, which indicates that as part of any license issued to AES for the EREF there will be a condition requiring that AES comply with the terms of the MOA. *See id.* encl. at 4.

Board posed questions to AES and the Staff in a number of areas.[35] *See supra* note 3 and accompanying text. A number of these questions related to other portions of the Staff's FEIS that were not encompassed by the presentation topics although, unlike the safety portion of this proceeding, all involved material that was publicly available. Below, we outline our findings relative to those matters.

a. *Board Environmental Question Topics Not Warranting Further Discussion*

4.151 Among the environmental areas that were the subject of Board questions but were not covered by or during evidentiary hearing presentation topics were (1) whether the need for the facility depends on a reduced supply of LEU from foreign sources; *see* Initial Board Environmental Questions attach. A, at 1 (Environmental Question 2); (2) what ensures that the initial and final radiation surveys will be representative of the areas that are being decomtaminated/decommissioned so as to provide a proper comparative basis for a decommissioning decision, *see id.* at 2 (Environmental Question 4); (3) which Staff-identified potential environmental impact mitigation measures will be implemented by AES and how will effective implementation be ensured; *see id.* (Environmental Question 5); Third Board Environmental Questions app. A, at 4 (Environmental Question 24); (4) lack of discussion of mitigation measures relating to impacts of radiological material transportation accidents and use of transportation modeling routing restrictions for actual shipments, *see* Initial Board Environmental Questions app. A, at 3 (Environmental Question 8); (5) choice of FEIS-evaluated accident scenarios and scale used for classifying accident scenario impacts, *see id.* (Environmental Question 9); (6) use of construction/operation impacts as bounding for impacts of decontamination/decommissioning, *see id.* at 4 (Environmental Question 10); Third Board Environmental Questions app. A, at 1 (Environmental Question 21); (7) EREF use of possible Texas low-level radioactive waste disposal facility, *see* Second Board Environmental Questions app. A, at 1 (Environmental Question 13); (8) environmental impact of facility-generated sounds outside human hearing ranges, *see id.* at 2 (Environmental Question 16); (9) validity of construction worker dose calculations, *see id.* (Environmental Question 17); (10) use of 2010 census data to calculate radioactive material truck transportation route population densities, *see id.* (Environmental Question 18); and (11) selection of parameters for, and calibration of, atmospheric transport model used to determine radiological

[35] In its proposed findings of fact and conclusions of law, applicant AES provides a discussion outlining the content of the AES/Staff responses to the various Board questions. *See* AES Proposed Environmental Findings at 9-23.

impacts of uranium compounds during normal facility operations, *see id.* at 3 (Environmental Question 19).

4.152 The Board concludes that the Staff's and the applicant's written responses to these questions, *see supra* note 4 and accompanying text, adequately addressed the Board's concerns in those areas.[36] Accordingly, we consider these NEPA-related environmental issues resolved for this proceeding. *See Clinton ESP,* CLI-06-20, 64 NRC at 21-22.

b. Board Public Environmental Question Topics Warranting Additional Discussion

4.153 In addition to the subjects outlined in section IV.B.1.a, above, that were the subject of Board questions, there were several other areas that were the subjects of Board questions and party answers that were not covered by the evidentiary hearing presentation topics, but which merit some additional discussion. These include the accuracy of the seismic and weather avoidance areas specified by AES in the course of its siting alternatives analysis for the EREF and the AES determination not to exclude the EREF site from consideration notwithstanding the nearby presence of the Hell's Half Acre recreational site.

(i) SITE SELECTION SEISMIC AND WEATHER AVOIDANCE AREAS

4.154 In its review of the FEIS, the Board took note of the map in Figure 2.8 showing regions in the continental United States that meet the original site selection criteria with regard to potential hazards from earthquakes, tornados, winter weather, and hurricanes. On this map, the region in which the EREF site is located, which is shown as a suitable siting area, is bordered on three sides by seismic avoidance areas. Additionally, the EREF site is shown to be relatively close to the boundary of the seismic avoidance area and to be about 75 miles from the large winter weather avoidance area. *See* FEIS at 2-30. In its second set of environmental questions, the Board asked AES and/or the Staff why, given the configuration of unsuitable siting areas so close to the EREF site, they were confident that these avoidance areas have been accurately mapped such that the proposed EREF falls outside their boundaries. *See* Second Board Environmental Questions app. A, at 1 (Environmental Question 14).

4.155 In addressing the issue of the winter weather avoidance area, AES responded that in defining this area, snowfall data from the National Oceanic and Atmospheric Administration were used to estimate the risk of long-term

[36] The Board also finds, based on the resumes, CVs, and SPQs admitted as part in the evidentiary record, that the various individuals proffered by AES and the Staff to answer these questions have established their qualifications to respond to the questions.

road closures owing to severe winter conditions. AES also emphasized that the avoidance area shown on the map was "a very simplified illustration of the general winter weather region of concern for the regional screening process." AES Second Environmental Questions Response at 2. Nonetheless, AES went on to state that the southern boundary of the avoidance region in Idaho was specifically drawn to separate areas of high snowfall to the north from the region of reduced snowfall that characterizes the cold desert climate of the eastern Snake River Plain. AES further noted that no attempt was made to analyze snowfall data for the mountainous areas of the western United States because these areas were never considered to be suitable sites for the EREF. *See id.* at 2-3.

4.156 In discussing the seismic avoidance areas, AES asserted that the boundaries are sufficiently accurate because they are based on seismic hazard values calculated by the USGS for a closely spaced geographic grid of 0.05 degree latitude by 0.05 degree longitude (equivalent to a regular spacing of approximately 3.5 by 2.5 miles). Seismic avoidance areas were designated where peak horizontal ground accelerations (pga) greater than 0.09g (where g is the acceleration of gravity) have a 10% probability of being exceeded over a 50-year period. *See id.* at 3-4. The Board notes, however, that a more detailed map of the USGS seismic hazard probabilities in eastern Idaho is provided in Figure 3-17 of the FEIS. On this map the probable peak acceleration in the area of the proposed EREF is 0.05g to 0.07g, and the nearest seismic avoidance area is located approximately 20 miles from the EREF site. *See* FEIS at 3-41.

4.157 The Board concludes that the applicant's written responses demonstrated that the avoidance areas for both winter weather hazards and seismic hazards were mapped using the best available data and that these avoidance areas were located with sufficient accuracy to ensure that the proposed EREF falls outside their boundaries. That being said, we consider it worth commenting on the seemingly unlikely shape of the region of low seismic risk in which the proposed EREF is located and which prompted our original question to the parties. As noted in FEIS § 3.6.1.1, the eastern Snake River Plain (ESRP) where the proposed EREF site is located is a region of low historic seismicity compared to areas of the Basin and Range tectonic province to the north and south and the Yellowstone Plateau to the east. The low historic seismicity and lack of geologic evidence for large prehistoric earthquakes are the primary factors that influence the results of the USGS calculations that indicate low seismic hazard probabilities for the ESRP relative to the surrounding areas. Moreover, a reasonable explanation for the anomalously low seismicity in the ESRP is provided in several references cited in the license application ER. *See* ER at 3.3-26 (citing T. Parsons & G.A. Thompson, *The Role of Magma Overpressure in Suppressing Earthquakes and Topography: Worldwide Examples,* 253 Science 1399-1402 (1991); T. Parsons, G.A. Thompson, & R.P. Smith, *More than One Way to Stretch: A Tectonic Model for Extension along the Plume Track of the Yellowstone Hotspot and Adjacent*

Basin and Range Province, 17 Tectonics, 221-234 (1998)). These technical analyses argue that tectonic strain beneath the ESRP is released by the injection of magmas associated with the Yellowstone hotspot, producing only very small magmatic earthquakes, whereas strain in the surrounding areas is released by sudden movements along normal faults, which can generate much larger earthquakes. This coupling of data on the distribution of historic earthquakes with a geologically consistent model that explains that distribution addresses the Board's concerns about the shape of the low seismic risk area that includes the EREF site.

(ii) VISUAL IMPACTS AT HELL'S HALF ACRE WILDERNESS STUDY AREA

4.158 In its FEIS, the Staff notes that operation of the proposed EREF is expected to have a MODERATE visual impact on the quality of the recreational experience for visitors to Hell's Half Acre Wilderness Study Area (WSA), the northern boundary of which is located approximately 2 miles south of the EREF. *See* FEIS at 4-11. According to the FEIS, visual impacts result when contrasts are introduced into a visual landscape. The current visual landscape of the proposed EREF site is cultivated farmland and undeveloped rangeland. *See id.* at 4-8. But during the latter stages of construction and throughout operation, the proposed EREF would introduce several buildings into the landscape along with ambient facility lighting. Both the buildings and the lighting would be visible to campers at the Hell's Half Acre WSA trailhead for the duration of the proposed license. *See id.* at 4-10 to -11.

4.159 Based on the Staff's finding of a MODERATE visual impact, the Board asked the parties to describe the available data on the annual number of recreational visitors to the Hell's Half Acre WSA during the last decade, and the potential for increased recreational use of the Hell's Half Acre WSA over the next three decades. *See* Initial Board Environmental Questions at 3 (Environmental Question 7). To provide an answer, the Staff contacted the Bureau of Land Management (BLM), Upper Snake Field Office, landowner of the Hell's Half Acre WSA. *See* Staff Initial Environmental Questions Response at 5. The Staff witness supporting the Staff's response to this question, Daniel O'Rourke,[37] stated that the Staff confirmed from the BLM that the visitor use data provided in the AES ER were reflective of the past visitor use at the Hell's Half Acre WSA: "Each year, about 9,000 to 10,000 people visit BLM Hell's Half Acre WSA and about 6,600 people use the loop hiking trail." *Id.* (citing ER at 3.9-1). The BLM also indicated that visitor use of the Hell's Half Acre WSA in fiscal year 2008 was

[37] The background and qualifications for Staff witness O'Rouke, were set forth previously in section IV.A.6.b, *supra.* With his qualifications as an ANL environmental scientist and his experience in conducting environmental reviews for cultural resources, he is an appropriate supporting witness for this Staff response on the visual impacts of the proposed EREF relative to the Hell's Half Acre WSA.

between 6000 and 7000 people, and visitor use in fiscal year 2009 was between 5000 and 6000 people. *See id.*

4.160 Staff witness O'Rourke further noted that the Staff's analysis of visual impact rests on a qualitative determination and, therefore, does not depend on the precise number of visitors from year to year. As a result, although the data in the ER were not included in the EIS, these data do not change the Staff's analysis. *See id.*

4.161 The Board concludes that its question regarding the visual impacts relative to the Hell's Half Acre WSA has been adequately addressed by the Staff's response. The Board also agrees that operation of the EREF will result in as much as a MODERATE visual impact relative to the Hell's Half Acre WSA trailhead, notwithstanding AES's proposed mitigation measures, which include painting the proposed facility in colors that would blend with the surrounding vegetation; creating earthen berms or other types of visual screens made of natural materials; and utilizing downward facing perimeter lighting.[38] *See* FEIS at 4-11.

2. Environmental Matters Not Raised by the Board

4.162 Finally, there are portions of the Staff's FEIS, such as that dealing with environmental justice and traffic impacts, about which the Board did not make a specific inquiry in this proceeding.[39] We found those portions to be sufficient on their face and therefore did not pursue them further.[40] *See Clinton*

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[38] The Board also notes that the better developed and more heavily used area of the Hell's Half Acre National Natural Landmark, of which the Hell's Half Acre WSA located just south of the EREF is only a small part, is located 20 miles to the southeast of the EREF site and would not be visually impacted. *See* FEIS at 4-9; Tr. at 551 (Kolpa Test.).

[39] In this regard, we note that in its proposed findings of fact relative to the environmental portion of this uncontested hearing, the Staff provided an outline of the significant technical findings and conclusions reached in each of its FEIS chapters, which constitute the Staff's environmental findings regarding the impacts, alternatives, costs, and benefits associated with the construction, operation, and decommissioning of the proposed EREF. *See* Staff Proposed Environmental Findings at 9-36.

[40] Although the matter of the need for the EREF in light of the Fukushima I accident was the overwhelming focus of the limited appearance statements received by the Board in connection with the environmental portion of this mandatory hearing, *see supra* note 13, one of the limited appearance statements sent to the Board after the evidentiary hearing also appears to raise concerns about myriad additional issues that are not subjects specifically addressed by the Board in either the AEA/safety-related or NEPA/environmental-related portions of this proceeding, including the risks of uranium mining and milling; uncertainty about the method and timing of DU waste disposal; impacts of the facility on the local ecology and various local flora and fauna; accident risks associated with transportation of radioactive materials; compliance with the Federal Farmland Protection Act; the need for a nonproliferation assessment of the EREF; the provision of state and federal financial assistance to AES; preconstruction activities associated with transmission lines; and aquifer contamination.

(Continued)

ESP, CLI-06-20, 64 NRC at 21-22. Finding nothing illogical about any aspect of the Staff's approach to these environmental matters that were not the subject of specific Board inquiry, nor anything to indicate that the facts in the record do not support the Staff's conclusions with respect to such environmental matters, we consider the issues addressed in those portions of the FEIS to be resolved in favor of issuance of the requested Part 70 license.

3. Findings Regarding Required NEPA Determinations

4.163 As was noted previously, *see supra* section III.C, in accordance with paragraph II.E of the notice of hearing issued in this case, this Licensing Board is required to make the following determinations regarding NEPA issues:

1. Determine whether the requirements of section 102(2)(A), (C), and (E) of [NEPA] and Subpart A of 10 C.F.R. Part 51 have been complied with in the proceeding;
2. Independently consider the final balance among conflicting factors contained in the record of the proceeding with a view to determining the appropriate action to be taken; and
3. Determine whether the construction permit should be issued, denied, or appropriately conditioned to protect environmental values.

Additionally, the Board must determine whether (1) the application and record of the proceeding contain sufficient information to support license issuance; (2) the Staff's review of the application has been adequate to support findings to be made by the NMSS Director with respect to whether (a) the application satisfies the standards set forth in the Commission's hearing notice and the applicable standards in 10 C.F.R. Parts 30, 40, and 70, and (b) the requirements of NEPA and the agency's implementing regulations in Part 51 have been met; and (3) the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate. *See* 74 Fed. Reg. at 38,053-54 (CLI-09-15, 70 NRC at 7-8). The Board's findings with respect to these NEPA issues are set forth below.

See E-mail from Liz Woodruff, Executive Director, Snake River Alliance (SRA) to Administrative Judge Paul Bollwerk (July 15, 2011, 05:17 p.m. ET), attached file at unnumbered pages 1-5 (Final Talking Points Areva EIS.doc) (ADAMS Accession No. ML112010259). It appears, however, that the concerns raised in this limited appearance statement are similar, if not identical, to comments previously provided to the Staff regarding the EREF draft EIS. *See* E-mail from Liz Woodruff, Energy Policy Analyst, SRA to EagleRockEIS Resource at 1-5 (Sept. 10, 2010, 01:01 p.m. ET) (ADAMS Accession No. ML102580035). Nothing in the Staff's FEIS responses to these concerns, *see* FEIS Appendices at I-23 (Commenter No. 191), provides us with an impetus for undertaking any additional inquiry regarding these matters.

a. Staff Compliance with NEPA § 102(2)(A), (C), and (E) and 10 C.F.R. Part 51, Subpart A

4.164 As detailed in the FEIS, in accord with NEPA § 102(2)(A), 42 U.S.C. § 4332(2)(A), the Staff's independent technical analysis of the information provided in the AES ER, as supplemented by the Staff, utilizes a "systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment," and therefore comports with the NRC's requirements in Appendix A of 10 C.F.R. Part 51. Furthermore, the Staff environmental findings in the FEIS constitute the "hard look" required by NEPA and have reasonable support in logic and fact.

4.165 In accordance with NEPA § 102(2)(C)(i)-(v), 42 U.S.C. § 4332(2)(C)(i)-(v), the FEIS in chapters 2 and 4, *see* FEIS at 2-1 to -69, 4-1 to -178, as supplemented by the findings in this decision, adequately addresses (1) the environmental impact of the proposed action; (2) any unavoidable adverse environmental effects; (3) alternatives to the proposed action; (4) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. The Board further concludes that the Staff has satisfied the requirements of NEPA § 102(2)(C) to "consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved," 42 U.S.C. § 4332(2)(C). *See* FEIS at 1-19, 1-24 to -27, 9-1 to -2.

4.166 In chapter 2 of the Staff's FEIS, *see* FEIS at 2-27 to 2-42, as it involved unresolved conflicts concerning alternative uses of available resources, the Staff adequately considered alternatives to the proposed action, including the no-action alternative, alternative sites, alternative sources of low-enriched uranium, and alternative enrichment technologies. Accordingly, the Staff consideration of alternatives to the proposed action in the FEIS satisfies NEPA § 102(2)(E), 42 U.S.C. § 4332(2)(E).

4.167 Having reviewed the basis for the Staff's central environmental-related conclusions, the Board finds that the Staff's review is adequate under 10 C.F.R. Part 51, Subpart A. *See* 10 C.F.R. 51.105(a)(4). Thus, all findings and analyses required by NEPA § 102(2)(A), (C), and (E), 42 U.S.C. § 4332(2)(A), (C), and (E), have been satisfied with respect to approval of the AES request for authorization under 10 C.F.R. Part 70 to construct and operate the EREF. *See North Anna ESP,* LBP-07-9, 65 NRC at 614.

b. Independent Consideration of the Final Balance Among Conflicting Factors

4.168 In section 2.5 of the FEIS, the Staff concludes that the overall benefits of the proposed EREF outweigh the environmental disadvantages and costs associated with the construction, operation, and decommissioning of the EREF. *See* FEIS at 2-65. In support of this conclusion, the Staff cites two considerations: (1) the need for an additional economical domestic source of enrichment services; and (2) the generally SMALL environmental impacts of the proposed action, although recognizing those impacts could be MODERATE as to certain aspects associated with the areas of historical/cultural resources, visual/scenic resources, ecological resources, and transportation, and LARGE as to certain aspects of air quality, at least on a temporary basis. *See id.* In accordance with the notice of hearing, the Board has independently considered the final balance among the conflicting factors contained in the record of this proceeding and concludes that, overall, the balance supports issuance of a Part 70 license to AES authorizing the construction and operation of the EREF.

c. Ultimate NEPA Determination Regarding License Issuance

4.169 In accordance with the notice of hearing, after weighing the environmental, economic, technical, and other benefits against the enviromental and other costs, and considering the reasonable alternatives, the Board concludes that a Part 70 license authorizing AES to construct and operate the EREF should be issued, and no conditions on such license (beyond those already imposed by the Staff or the Board) are necessary or appropriate to protect environmental values.

d. Sufficiency of Application/Record, Compliance with 10 C.F.R. Part 51, and Adequacy of Staff Review

4.170 Based upon its review of the AES ER, the Staff's draft and final EIS, and the record of this proceeding, the Board concludes that (1) the AES application and record of the proceeding, including the FEIS as supplemented by this decision, contain sufficient information to support issuance of a 10 C.F.R. Part 70 license to AES for the construction and operation of the EREF; (2) the Staff's review of the application has been adequate to support any findings to be made by the NMSS Director with respect to whether (a) the application satisfies the standards set forth in the Commission's hearing notice and the applicable standards in 10 C.F.R. Parts 30, 40, and 70, and (b) the requirements of NEPA and the agency's implementing regulations in Part 51 have been met; and (3) the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate.

V. CONCLUSION

5.1 In accordance with the Commission's directives, *see Clinton ESP,* CLI-05-17, 62 NRC at 34, 39; *Clinton ESP,* CLI-06-20, 64 NRC at 21-22, the Board conducted an independent sufficiency review of the Staff findings, and probed those Staff findings by focusing in detail on the NEPA/environmental-related issues addressed by the Staff in its FEIS. In this regard, as was noted in section IV, *supra,* relative to those matters that were the subject of a series of Board questions prior to the hearing, but for which the Board did not request a presentation from either the Staff or AES, *see* section IV.B.1.a, *supra,* the Board was satisfied with the answers provided. *See Clinton ESP,* CLI-06-20, 64 NRC at 21-22. Similarly, with respect to each of the topics that were the subject of party presentations at the July 2011 evidentiary hearing (and which were described in detail in section IV.A, above), the Board concludes that the Staff review was sufficient and reasonably supported in logic and fact. Finally, the Board was satisfied with the adequacy of the Staff review of topics in its FEIS that were not the subject of either Board questions or presentations.

5.2 In accordance with the Commission's notice of hearing for this proceeding, *see* 74 Fed. Reg. at 38,054 (CLI-09-15, 70 NRC at 7), having reviewed the basis for the Staff's NEPA/environmental-related conclusions, the Board determines that (1) the application and record of the proceeding contain sufficient information to support license issuance; (2) the Staff's review of the application has been adequate to support findings to be made by the NMSS Director with respect to whether (a) the application satisfies the standards set forth in the Commission's hearing notice and the applicable standards in 10 C.F.R. Parts 30, 40, and 70, and (b) the requirements of NEPA and the agency's implementing regulations in Part 51 have been met; and (3) the review conducted by the Staff pursuant to 10 C.F.R. Part 51 has been adequate. Further, after considering the final balance among conflicting factors in the record of this proceeding, the Board concludes that (1) the requirements of NEPA § 102(2)(A), (C), and (E) and 10 C.F.R. Part 51, Subpart A, have been complied with in the proceeding; and (2) after independently weighing the environmental, economic, technical, and other benefits against the environmental and other costs, and considering reasonable alternatives, the license requested under the AES application at issue in this proceeding should be issued.

6.1 For the foregoing reasons, it is, this 7th day of October 2011, ORDERED, that:

1. Pursuant to 10 C.F.R. § 2.340(k), if the Director, NMSS, has made all findings necessary for license issuance that are not within the scope of this PID, within 10 days of the issuance of this PID the Director, NMSS, shall issue the

appropriate license authorizing the construction and operation of the proposed EREF.

2. Pursuant to 10 C.F.R. § 2.341(a), this PID will constitute a final decision of the Commission forty (40) days from the date of issuance, i.e., on *Wednesday, November 16, 2011,* unless a petition for review is filed in accordance with 10 C.F.R. § 2.341(b), or the Commission directs otherwise. Any party wishing to file a petition for review on the grounds specified in section 2.341(b)(4) must do so within fifteen (15) days after service of this PID. A party must file a petition for review to have exhausted its administrative remedies before seeking judicial review. Within ten (10) days after service of a petition for review, any other party to the proceeding may file an answer supporting or opposing Commission review. Any petition for review and any answer shall conform to the requirements of 10 C.F.R. § 2.341(b)(2)-(3).

THE ATOMIC SAFETY AND
LICENSING BOARD

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

Kaye D. Lathrop
ADMINISTRATIVE JUDGE

Craig M. White
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 7, 2011

Cite as 74 NRC 591 (2011) **LBP-11-27**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
Dr. Gary S. Arnold
Dr. William H. Reed

In the Matters of

PPL BELL BEND, LLC	**Docket No. 52-039-COL**
(Bell Bend Nuclear Power Plant)	**(ASLBP No. 11-914-02-COL-BD01)**
LUMINANT GENERATION COMPANY LLC	**Docket Nos. 52-034-COL 52-035-COL**
(Comanche Peak Nuclear Power Plant, Units 3 and 4)	**(ASLBP No. 11-914-02-COL-BD01)**
ENERGY NORTHWEST	**Docket No. 50-397-LR**
(Columbia Generating Station)	**(ASLBP No. 11-912-03-LR-BD01)**
SOUTHERN NUCLEAR OPERATING COMPANY	**Docket Nos. 52-025-COL 52-026-COL**
(Vogtle Electric Generating Plant, Units 3 and 4)	**(ASLBP Nos. 11-914-02-COL-BD01, 11-913-01-COL-BD01)**

DUKE ENERGY CAROLINAS, LLC
(William States Lee III Nuclear Station, Units 1 and 2)

Docket Nos. 52-018-COL
52-019-COL
(ASLBP No. 11-913-01-COL-BD01)

October 18, 2011

MEMORANDUM AND ORDER
(Denying Motions to Reopen Closed Proceedings and Intervention Petition/Hearing Request as Premature)

I. INTRODUCTION

Before these three identically constituted Licensing Boards are (1) motions filed by individuals and organizations seeking to revive a total of four now-closed adjudicatory proceedings and (2) an intervention petition and hearing request (hereafter petition) in a not previously established proceeding. The purpose of both the motions and the petition is to put before the Boards a new and essentially identical contention for their consideration.

The four closed adjudicatory proceedings involved applications for combined construction permits and operating licenses (COLs) for the following nuclear power facilities:

Bell Bend Nuclear Power Plant (Bell Bend) to be located in Luzerne County, Pennsylvania;[1]

Comanche Peak Nuclear Power Plant, Units 3 and 4 (Comanche Peak), to be located in Somervell County, Texas;[2]

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[1] Bell Bend Nuclear Power Plant Combined License Application Part 4: Technical Specifications and Bases at 1-19 (Rev. 2) (Feb. 2010) (ADAMS Accession No. ML101890281). Movant Gene Stilp moved to reopen the *Bell Bend* proceeding for consideration of the common contention on August 10, 2011. Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident (Aug. 10, 2011); Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 10, 2011) [hereinafter Bell Bend Contention]. Mr. Stilp filed a corrected motion to reopen on August 17, 2011. Corrected Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident (Aug. 17, 2011).

[2] Comanche Peak Nuclear Power Company Units 3 and 4 COL Application Part 1 Administrative and Financial Information at 9 (Rev. 2) (June 2011) (ADAMS Accession No. ML11186A867). Movants Lon Burman, Sustainable Energy and Economic Development (SEED) Coalition, Public *(Continued)*

Vogtle Electric Generating Plants, Units 3 and 4 (Vogtle), to be located in Burke County, Georgia;[3] and

William States Lee III Nuclear Station (Lee) to be located in Cherokee County, South Carolina.[4]

Each of these adjudicatory proceedings was terminated without an evidentiary hearing being held.

For its part, the petition is addressed to the application for a renewal of the operating license possessed by the Columbia Generating Station, located on the Department of Energy's Hanford Reservation in Benton County, Washington.[5] Because no hearing requests were submitted in response to the notice of op-

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Citizen, and True Cost of Nukes, Notice of Appearance for Robert V. Eye (Apr. 7, 2009), jointly filed the common contention on August 11, 2011, Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011), and moved to reopen the *Comanche Peak* proceeding on September 15, 2011. Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident (Sept. 15, 2011).

[3] Southern Nuclear Operating Company Vogtle Electric Generating Plant, Units 3 & 4 COL Application at 1-16 (Rev. 4) (June 2011) (ADAMS Accession No. ML11180A098). Two motions to reopen the *Vogtle* proceeding for consideration of the common contention were filed. First, Blue Ridge Environmental Defense League (BREDL) filed the reopening motion and common contention on August 11, 2011. Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident (Aug. 11, 2011) [hereinafter Blue Ridge Vogtle Motion]; Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) [hereinafter Blue Ridge Vogtle Contention]. Second, Center for a Sustainable Coast, Georgia Women's Action for New Directions f/k/a Atlanta Women's Action for New Directions, and Southern Alliance for Clean Energy (collectively, CSC Intervenors) filed the common contention on August 11, 2011, and the reopening motion on August 12, 2011. Motion to Reopen the Record and Admit Contentions to Address the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident (Aug. 12, 2011); Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011).

[4] Combined License Application Part 1 General and Financial Information William States Lee III Nuclear Station Units 1 and 2 at 1.0-5 (Rev. 3) (Dec. 2010) (ADAMS Accession No. ML110030639). BREDL moved to admit the common contention in the *William States Lee* proceeding on August 11, 2011. Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-Ichi Accident (Aug. 11, 2011); Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) [hereinafter William States Lee Contention].

[5] License Renewal Application Columbia Generating Station at 1.2-1 (Jan. 2010) (ADAMS Accession No. ML100250658). Petitioner Northwest Environmental Advocates petitioned to intervene in the *Columbia Station* license renewal application process on August 22, 2011. Petition for Hearing and Leave to Intervene in Operating License Renewal for Energy Northwest's Columbia Generating Station (Aug. 22, 2011) [hereinafter Columbia Station Petition].

portunity published in the *Federal Register,*[6] no adjudicatory proceeding was established in the wake of that notice. Thus, in the case of Columbia Station, an intervention petition and request for hearing were required in order to advance the common contention.

The endeavor now to reopen four closed proceedings and to give birth to yet a fifth has its roots in a single event and, indeed, with regard to each, an essentially identical case is presented in support of the requested relief. That event was the severe and consequential damage to the Fukushima Dai-ichi Nuclear Power Station in Japan brought about by a magnitude 9.0 earthquake and an ensuing tsunami that occurred on March 11, 2011. Following that event, this agency immediately embarked upon a course designed to determine the implications of that disaster in terms of the safety of reactors located in the United States.

In that regard, at the Commission's direction, the NRC Staff established a Task Force.[7] Its assigned task was "to review [NRC] processes and regulations to determine, among other things, whether the agency should make additional improvements to our regulatory system."[8] The Task Force was instructed to "submit for [Commission] consideration recommendations for technical and policy direction."[9]

On July 12, 2011, the Task Force issued its near-term report, containing a substantial number of recommendations for improving the safety of both new and operating reactors.[10] At the same time, its authors stated that the "continued operation and continued licensing activities do not pose an imminent risk to public health and safety."[11]

As will shortly be seen, it was the issuance of this report, and more particularly the recommendations set forth in it, that triggered the motions and petition in hand. In addition, very similar contentions founded upon the Task Force report have been simultaneously placed before a number of other licensing boards in currently active proceedings.[12]

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[6] 75 Fed. Reg. 11,572 (Mar. 11, 2010).

[7] Commission Memorandum, "NRC Actions Following the Events in Japan" at 1 (Mar. 21, 2011) (ADAMS Accession No. ML110800456) [hereinafter Tasking Memorandum].

[8] *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 147 (2011).

[9] *Id.* (citing Tasking Memorandum).

[10] Dr. Charles Miller et al., Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident (July 12, 2011) (ADAMS Accession No. ML111861807) [hereinafter Near-Term Task Force Report].

[11] *Id.* at vii.

[12] For example, the common contention has also been filed in *Tennessee Valley Authority* (Watts Bar Unit 2), Docket No. 50-391-OL. Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) at 4 (ADAMS Accession No. ML11223A291).

The motions and petition are opposed by the various utility applicants and the NRC Staff on a variety of grounds, including an insistence that the filings are untimely and do not meet the standards imposed by the Commission's Rules of Practice with regard to reopening closed records and contention admissibility.[13] For the reasons set forth in greater detail below, we need not address those standards here. This is because, giving effect to a September 9 Commission issuance (CLI-11-5),[14] it is apparent to us that, far from being untimely, the motions and petition are, in fact, premature and must be denied on that basis without regard to any other considerations. The Columbia Station petitioner and the movants in two of the closed adjudicatory proceedings address CLI-11-5 in their reply memoranda.[15] The movants in all four closed adjudicatory proceedings, as well as the Columbia Station petitioner, will, of course, be free to seek the relief currently denied them at such time as the concern underlying their current contention becomes ripe for consideration in an adjudicatory context.

Given the commonality of the relief sought by the motions and petition, for the purpose of the ensuing discussion we are focusing upon the motion to reopen the *Vogtle* COL proceeding submitted by the Blue Ridge Environmental Defense League (BREDL).[16] Our conclusions relating to its prematurity have equal application to all of the other filings before us.

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[13] For example, these arguments are raised by the applicant and NRC Staff in the *Vogtle* proceeding. NRC Staff Answer to Petitioners' Motion to Admit New Contention Regarding the Safety and Environmental Implications of the NRC Task Force Report on the Fukushima Dai-ichi Accident (Sept. 6, 2011) at 1; Southern Nuclear Operating Company's Answer in Opposition to Motions to Reopen the Record and Request to Admit New Contentions (Aug. 22, 2011) at 3, 6, 24.

[14] *Callaway,* CLI-11-05, 74 NRC 141.

[15] In the *Vogtle* proceeding, CLI-11-5 is addressed in BREDL's reply memorandum, Reply Memorandum Regarding Timeliness and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings (Sept. 18, 2011) at 1, and in the CSC Intervenors' reply memorandum, Reply Memorandum Regarding Timeliness and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings (Sept. 13, 2011) at 1. BREDL also addresses CLI-11-5 in the reply memorandum it submitted in the *William States Lee* proceeding. Reply Memorandum Regarding Timeliness and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings (Sept. 19, 2011) at 1. In the *Columbia Station* proceeding, CLI-11-5 is addressed in Northwest Environmental Advocates' reply memorandum. Reply Memorandum Regarding Timeliness and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings (Sept. 22, 2011) at 1.

[16] Blue Ridge Vogtle Motion; Blue Ridge Vogtle Contention.

II. THE VOGTLE CONTENTION

BREDL filed its motion to reopen the *Vogtle* proceeding on August 11, 2011, the same date upon which most of the other motions to reopen and the petition to intervene were filed. Its purpose in seeking reopening is to have considered the following new contention that, as previously noted, is common to all of the other motions and the petition before the Board:

> The EIS [(environmental impact statement)] for Vogtle fails to satisfy the requirements of NEPA because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report, including seismic-flood and environmental justice issues. As required by 10 C.F.R. § 51.92(a)(2) and 40 C.F.R. § 1502.9(c), these implications must be addressed in a supplemental Draft EIS.[17]

As BREDL emphasizes, the contention is founded on its claim that the EIS prepared by the NRC Staff for this facility "fails to address the extraordinary environmental and safety implications of the findings and recommendations" of the Task Force report[18] and rests upon "information contained within the Task Force [r]eport."[19]

Turning to the specific assertions undergirding the contention, BREDL would have it that the Task Force report's "implication" is "that compliance with current NRC safety requirements does not adequately protect public health and safety from severe accidents and their environmental effects."[20] It characterizes the Task

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[17] Blue Ridge Vogtle Contention at 4. The other five proposed new contentions are distinct in two respects, neither of which is of any significance for present purposes. First, BREDL's contention in the *Vogtle* proceeding is the only contention that contains the words "including seismic-flood and environmental justice issues." *Id.* Second, the proposed new contentions for the Bell Bend, Columbia Station, and William States Lee facilities each challenge the facility's ER, Bell Bend Contention at 4; Columbia Station Petition at 20; William States Lee Contention at 5, because an EIS had not issued by the time the proposed new contentions were filed. See Application Review Schedule for the Combined License Application for Bell Bend Nuclear Power Plant, http://www.nrc.gov/reactors/new-reactors/col/bell-bend/review-schedule.html (last visited Oct. 12, 2011); Columbia Generating Station — License Renewal Application, http://www.nrc.gov/reactors/operating/licensing/renewal/applications/columbia.html (last visited Oct. 12, 2011); Letter from David B. Matthews, Director, Division of New Reactor Licensing, Office of New Reactors, to Bryan J. Dolan, Vice President, Nuclear Plant Development, Duke Energy Carolinas, LLC (Jan. 11, 2011) tbl. 1 (ADAMS Accession No. ML103370325). The Bell Bend, Columbia Station, and William States Lee proposed new contentions also refer to "NEPA and the NRC regulations" instead of "10 C.F.R. § 51.92(a)(2) and 40 C.F.R. § 1502.9(c)." Bell Bend Contention at 4; Columbia Station Petition at 20; William States Lee Contention at 5.

[18] Blue Ridge Vogtle Motion at 1.

[19] *Id.* at 4.

[20] *Id.* at 5-6.

Force report as "recommending the NRC strengthen its regulatory scheme for protecting public health and safety by increasing the scope of accidents that fall within the 'design basis' and are therefore subject to mandatory safety regulation."[21] In that regard, BREDL maintains that the Task Force recommended that "severe accident mitigation alternatives ('SAMAs') [be] imposed as mandatory measures."[22] It further asserts that the Task Force "also recommended that the NRC undertake new safety investigations and impose design changes, equipment upgrades, and improvements to emergency planning and operating procedures."[23] BREDL additionally points out that "[t]he Task Force recommended that licensees reevaluate the seismic and flooding hazards at their sites and if necessary update the design basis and [structures, systems, and components] important to safety to protect against updated hazards."[24]

According to BREDL, the Task Force's recommendations also include

> strengthening [station blackout] mitigation capability at all operating and new reactors for design-basis and beyond-design-basis external events, . . . requiring reliable hardened vent designs in [boiling water reactor] facilities with Mark I and Mark II containments . . . , enhancing spent fuel pool makeup capability and instrumentation for the spent fuel pool . . . and strengthening and integrating onsite emergency response capabilities such as [emergency operating procedures], [severe accident management guidelines], and [extensive damage mitigation guidelines].[25]

BREDL argues that admission of the proposed new contention "constitutes the only way of ensuring that the environmental implications of the Task Force recommendations are taken into account in the licensing decision for Vogtle" because "the NRC Commissioners have postponed taking action on the Task Force's recommendations."[26]

BREDL represents that "[t]he Task Force urges that some of its recommendations," including proposed new measures for prolonged station blackout mitigation and for spent fuel pool makeup capability and instrumentation, should be considered before COL licensing decisions are made.[27] BREDL concludes that NEPA

[21] Blue Ridge Vogtle Contention at 2 (citing Near-Term Task Force Report at 20-21).

[22] Blue Ridge Vogtle Motion at 5; *accord* Blue Ridge Vogtle Contention at 5-6 ("[T]he Task Force recommended that the NRC incorporate severe accidents into the 'design basis' and subject it to mandatory safety regulations.").

[23] Blue Ridge Vogtle Contention at 6 (citing Near-Term Task Force Report at 73-75).

[24] *Id.* at 15 (citing Near-Term Task Force Report at 30).

[25] *Id.* at 16-17 (citing Near-Term Task Force Report §§ 4.2.1, 4.2.2, 4.2.4, 4.2.5).

[26] *Id.* at 3.

[27] *Id.* at 17.

requires the NRC to "address the Task Force's findings and recommendations as they pertain to Vogtle" before making a licensing decision.[28]

Still further, BREDL asserts that the Task Force report's "conclusions and recommendations" are "'new and significant information' whose environmental implications must be considered" before the NRC makes decisions on the application.[29] BREDL would have it that "the information is 'new' because it stems directly from the Fukushima accident," which it concedes occurred 5 months before it filed the proposed new contentions.[30] In BREDL's view, the Task Force report's conclusions and recommendations are "'significant' because [they raise] an extraordinary level of concern" about how the plant "impacts public health and safety."[31]

For factual support of its assertions, BREDL "relies on the Task Force [r]eport itself" and proffers a declaration by Dr. Arjun Makhijani as expert support.[32] According to BREDL, Dr. Makhijani's declaration "confirms the environmental significance of the Task Force's findings and recommendations with respect to the environmental analyses for all pending nuclear licensing cases and design certification applications."[33] BREDL assigns to Dr. Makhijani the belief that the "costs may be significant" if severe accident mitigation measures are imposed as mandatory measures.[34]

In addition, BREDL supplies the declaration of Dr. Ross McCluney.[35] It asserts that "Dr. McCluney is a highly qualified expert in seismic-flooding issues raised in the Task Force [r]eport."[36] BREDL attributes to Dr. McCluney the opinion that "seismic seiches — standing waves on rivers, reservoirs and lakes caused by disturbances from tectonic activity and earthquakes — may occur at great distances from the epicenter of the initiating seismic event."[37] BREDL states that Dr. McCluney's declaration "confirms the need for a hard look at the impact of

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[28] *Id.* at 18.

[29] *Id.* at 10.

[30] *Id.*

[31] *Id.* (citing 40 C.F.R. § 1508.27(b)(2)).

[32] Blue Ridge Vogtle Motion at 6.

[33] Blue Ridge Vogtle Contention at 20.

[34] *Id.* at 12.

[35] *Id.,* Attach., Declaration of Dr. Ross McCluney Regarding Environmental and Safety Issues at Nuclear Power Plants Based on Events at Fukushima and the Findings of the NRC Interim Task Force (Aug. 11, 2011) [hereinafter McCluney Declaration]. The only other proceeding in which Dr. McCluney's declaration was supplied in support of the common contention was *William States Lee.* William States Lee Contention, Attach., Declaration of Dr. Ross McCluney Regarding Environmental and Safety Issues at Nuclear Power Plants Based on Events at Fukushima and the Findings of the NRC Interim Task Force (Aug. 11, 2011).

[36] Blue Ridge Vogtle Motion at 6.

[37] Blue Ridge Vogtle Contention at 14 (citing McCluney Declaration).

seismic seiches" on the plant and "that structures, systems and components be designed to withstand the effects of such natural phenomena."[38]

BREDL also supplies the declaration of Rev. Charles N. Utley[39] as "a highly qualified expert in environmental justice."[40] BREDL would have it that Rev. Utley's declaration "confirms the need for NRC to implement the Interim Task Force recommendations on emergency preparedness and public education and to comply with Executive Order 12898."[41] BREDL maintains that "[s]ubsequent to the Vogtle COLA and ESP-FEIS, a nuclear power siting study was published which suggests that there is 'reactor-related environmental injustice' at Plant Vogtle."[42]

III. ANALYSIS

As seen from the foregoing, the generic contention put forth by BREDL et al. is not founded on the March 11, 2011 Fukushima event per se. (Indeed, had it been, there might well be a serious question regarding the timeliness of the August 11 filing of the motion to reopen.) Instead, in terms, the bedrock of the motion is the July 12 Task Force report on the event which was released precisely 30 days before BREDL's submission to us.

Specifically, we are asked to reopen the proceeding for the purpose of admitting a contention that would have it that the findings and recommendations contained in the Task Force report have "new and significant environmental implications" that must be addressed in a supplemental draft environmental impact statement. On first examination of that assertion, we found ourselves in considerable doubt as to how such weight and effect could attach to a mere report that had neither received the endorsement of the Commission nor, more importantly, led to some concrete affirmative action being taken in light of its content. On September 9, however, that doubt received dispositive reinforcement in CLI-11-5, *supra.*[43]

CLI-11-5 was issued in response to a series of petitions seeking, with regard to a large number of nuclear power facilities including the five now before us, the suspension of adjudicatory, licensing, and rulemaking activities and other relief

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[38] *Id.* at 20.

[39] *Id.,* Attach., Declaration of Rev. Charles N. Utley Regarding Environmental Justice and Emergency Response Issues at Plant Vogtle Electric Generating Plant [sic] Based on Events at Fukushima and the Findings of the NRC Interim Task Force (Aug. 11, 2011) [hereinafter Utley Declaration]. Rev. Utley's declaration was not filed in connection with any other motion to reopen or with the petition to intervene.

[40] Blue Ridge Vogtle Motion at 6.

[41] Blue Ridge Vogtle Contention at 20.

[42] *Id.* at 15 (citing Utley Declaration).

[43] *Callaway,* CLI-11-5, 74 NRC 141.

in light of the Fukushima event.[44] Included among the requested other relief was the agency's conduct of "a separate generic NEPA analysis regarding whether the Fukushima events constitute 'new and sufficient information' under NEPA that must be analyzed as part of the environmental review for new reactor and license renewal decisions."[45]

In addressing the various requests for relief, and ultimately denying all of possible relevance to the consideration of the matter now at hand, the Commission referred extensively to actions that it had taken upon the July 19 formal presentation of the Task Force report. Among other things, the Commission had directed the

> review and assessment, with stakeholder input, of the Task Force recommendations; provision of a draft charter for assessing the Task Force recommendations and conducting the agency's longer-term review; preparation of a notation vote paper that identifies recommended short-term actions; preparation of a notation vote paper that sets recommended priorities for the Task Force recommendations; and formal review of the Task Force recommendations by the Advisory Committee on Reactor Safeguards.[46]

At a later point in its decision, once again alluding to the Task Force recommendations "for short-term and long-term agency action," the Commission stressed that its consideration of those recommendations and the "efforts [the Commission] directed the Staff to undertake based on [them] may result in actions including the issuance of regulatory and policy direction."[47] In this connection, the Commission observed that, as the Task Force report reflected, "the mechanisms and consequences of the events at Fukushima are not yet fully understood."[48]

It was against this background that the Commission reached the petitioners' request that a generic NEPA analysis be performed. Its answer was both brief and emphatic:

> This request is premature. Although the Task Force completed its review and provided its recommendations to us, the agency continues to evaluate the accident and its implications for U.S. facilities and the full picture of what happened at Fukushima is still far from clear. In short, we do not know today the full implications

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[44] *Id.* at 141-43, 145-46.

[45] *Id.* at 166-67.

[46] *Id.* at 148.

[47] *Id.* at 166 (citing Staff Requirements Memorandum SECY-11-0093, Near-Term Report and Recommendations for Agency Actions Following the Events in Japan (Aug. 19, 2011) (ADAMS Accession No. ML112310021)).

[48] *Id.* at 166.

> of the Japan events for U.S. facilities. Therefore, any generic NEPA duty — if one were appropriate at all — does not accrue now.[49]

Significantly, the Commission went on to acknowledge that "new and significant information" might come to light that "requires consideration as part of the ongoing preparation of application-specific NEPA documents."[50] Should that occur, "the agency will assess the significance of that information, as appropriate."[51] Pointing, however, to the regulation setting forth the circumstances in which the Staff must prepare supplemental review documents, the Commission cited its holding to the effect that "'[t]he new information must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned.'"[52] In the Commission's view, "[t]hat is not the case here, given the current state of information available to us."[53]

It is difficult to fathom how the Commission could have stated more precisely and definitively that it remains much too early in the process of assessing the Fukushima event in the context of the operation of reactors in the United States to allow any informed conclusion regarding the possible safety or environmental implications of that event regarding such operation. Of still greater importance given BREDL's entire reliance on the findings and recommendations of the Task Force, the Commission stressed with equal force and clarity that, while under active study, none of those findings and recommendations has been accepted. Thus, they scarcely have been given the effect that, according to BREDL et al., gives rise to the environmental implications that undergird the contention that is sought to be admitted.

Turning to the matter before us, we think the Commission's disposition of the NEPA review issue presented to it, and the rationale assigned for that disposition, is plainly controlling here. We can perceive no possible basis upon which, in opposition to the conclusion of prematurity reached by the Commission, we might conclude that the contention presented to us is ripe for adjudication. Once again, that contention necessarily assumes the Commission's acceptance and implementation of Task Force findings and recommendations that might or might not be adopted in whole or part after the NRC Staff has completed the actions directed by the Commission upon receipt of that report.

It is worthy of note that neither BREDL nor any of the other sponsors of the contention have pointed to any unique characteristics of the site of the

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[49] *Id.* at 167.

[50] *Id.*

[51] *Id.*

[52] *Id.* at 167-68 (quoting *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 14 (1999)).

[53] *Id.* at 168.

particular reactor that might make the content of the Task Force report of greater environmental significance to that reactor than to United States reactors in general.[54] That consideration provides still further foundation for our reliance on the Commission's determination that a call for a generic NEPA review was premature.

Our conclusion that the contention is premature in the *Vogtle* proceeding, and thus as well in the four other proceedings in which it is presented, leaves open the question as to what might be an event that would trigger an assertion of the need for further NEPA review. Manifestly, the sponsors of the contention now held premature have a decided interest in the answer to that question. Indeed, it might well be that the motions to reopen and petition for intervention before us were filed simply out of an understandable abundance of caution in recognition of the fact that endeavors to reopen closed records or to open new proceedings at a late date are often greeted, as was the case here, with the claim that the endeavor comes too late.

Unfortunately, we are unable to provide guidance on that score. It is simply not possible to forecast at this writing when there might be some development associated with the Fukushima event that might give rise to a supportable contention respecting a need for further NEPA review either on a generic basis or in the context of one or more individual reactors. Nor is there room for speculation today regarding what that development might be.

In short, while perhaps of cold comfort to the sponsors of the contention now held to be premature, we can do no more than did the Commission itself in CLI-11-5 in its acknowledgment that, with the passage of time, "new and significant information [might come] to light that requires consideration as part of the ongoing preparation of application-specific NEPA documents."[55] At this juncture, as the Commission emphasized, "the full picture of what happened at Fukushima is still far from clear" with the consequence that "we do not know today the full implications of the Japan events for U.S. facilities."[56]

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[54] The only possible exception in this regard is BREDL's environmental justice claims. *E.g.,* Blue Ridge Vogtle Contention at 4. Although BREDL seeks to tie those claims to the Task Force report, *see, e.g.,* Blue Ridge Vogtle Motion at 7-8, it seems apparent from the supporting declaration of Rev. Utley that those claims are footed in (1) longstanding generic concerns about the agency's implementation of environmental justice and its policy on potassium iodide distribution, Utley Declaration at 2-6; and (2) a 2009 siting study, *id.* at 4; *see also* Blue Ridge Vogtle Contention at 15-16, concerns about which could have been raised at a much earlier junction in the proceeding, e.g., relative to the Staff's September 2010 draft supplemental environmental impact statement for the Vogtle COL. Office of New Reactors, Draft Supplemental Environmental Impact Statement for Combined Licenses (COLs) for Vogtle Electric Generating Plant Units 3 and 4, NUREG-1947 (Sept. 2010) (ADAMS Accession No. ML102370278).

[55] CLI-11-5, 74 NRC at 167.

[56] *Id.*

IV. CONCLUSION

For the reasons stated above, the motions to reopen the now-closed COL proceedings for the following nuclear power facilities:

Bell Bend Nuclear Power Plant;

Comanche Peak Nuclear Power Plant, Units 2 and 3;

Vogtle Electric Generating Plants, Units 3 and 4; and

William States Lee III Nuclear Station, Units 1 and 2

together with the intervention petition with regard to the application for a renewal of the operating license of

Columbia Generating Station

are hereby *denied* as premature.

It is so ORDERED.

THE ATOMIC SAFETY AND LICENSING BOARD[57]

Alan S. Rosenthal, Chairman
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

Dr. William H. Reed
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 18, 2011

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[57] Copies of this Order were sent this date by the agency's E-Filing system to counsel and representatives for PPL Bell Bend, LLC; Gene Stilp; Energy Northwest; Northwest Environmental Advocates; Luminant Generation Company, LLC; Lon Burman, Sustainable Energy and Economic Development (SEED) Coalition, Public Citizen, and True Cost of Nukes; Southern Nuclear Operating Co.; Blue Ridge Environmental Defense League; Center for a Sustainable Coast, Georgia Women's Action for New Directions f/k/a Atlanta Women's Action for New Directions, and Southern Alliance for Clean Energy; Duke Energy Carolinas, LLC; and the NRC Staff.

Cite as 74 NRC 604 (2011) **LBP-11-28**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Paul S. Ryerson, Chairman
Dr. Michael F. Kennedy
Dr. Richard E. Wardwell

In the Matter of **Docket No. 50-443-LR**
(ASLBP No. 10-906-02-LR-BD01)

NEXTERA ENERGY SEABROOK, LLC
(Seabrook Station, Unit 1) **October 19, 2011**

In this license renewal proceeding, the licensing board denies motions to admit a new contention arguing that the Applicant's environmental report for Seabrook Station, Unit 1 (Seabrook) fails to satisfy the National Environmental Policy Act because it does not address findings and recommendations raised by the July 2011 NRC Near-Term Task Force Report on the Fukushima Dai-ichi accident in Japan. The Board denies the motions because the proffered contention is premature and insufficiently focused on the license renewal application for Seabrook.

ENVIRONMENTAL REPORT

The purpose of an applicant's environmental report is to assist the NRC in preparing the agency's own environmental analysis. 10 C.F.R. § 51.14(a)(3), 51.71(a). Once the NRC performs its own analysis, alleged defects in an applicant's environmental report may be moot.

SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

A draft supplemental environmental impact statement need only address "new"

and “significant” information. 10 C.F.R. § 51.72(a)(2). To constitute “new” and “significant” information, the information must “present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned.” *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 167-68 (2011).

CONTENTIONS, ADMISSIBILITY

To proffer an admissible contention, interveners must demonstrate a genuine dispute suitable for evidentiary hearing. 10 C.F.R. § 2.309(f)(1)(vi).

MEMORANDUM AND ORDER

(Denying Motions to Admit New Contention)

Before the Board are two motions — filed collectively on behalf of the five Interveners — to admit essentially the same new contention.[1] NextEra Energy Seabrook, LLC (NextEra or Applicant) and the NRC Staff oppose.[2] Because the proffered contention is premature and insufficiently focused on the license

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[1] Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) [hereinafter Friends/NEC Motion to Admit]; Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) [hereinafter Beyond Nuclear Motion to Admit]; Friends of the Coast and New England Coalition’s Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) [hereinafter Friends/NEC Contention]; Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) [hereinafter Beyond Nuclear Contention]. Interveners also submitted replies in support of their motions, pursuant to section II.C.2 of the Initial Scheduling Order. Initial Scheduling Order (Apr. 4, 2011) at 4 (unpublished). *See* Intervenors’ Reply and Memorandum in Reply to NextEra and NRC Staff Oppositions to Admission of Friends of the Coast and New England Coalition’s Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Sept. 13, 2011); Petitioners’ Memorandum in Reply to Oppositions to Admission of New Contention in the Seabrook Relicensing Proceeding (Sept.13, 2011); Reply Memorandum Regarding Timelines and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings (Sept. 13, 2011).

[2] Answer of NextEra Energy Seabrook, LLC Opposing Motions to Admit New Contention (Sept. 6, 2011) [hereinafter NextEra Answer]; NRC Staff’s Answer to Contention in Support of Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident Filed by (1) Friends of the Coast and New England Coalition and (2) Beyond Nuclear, Seacoast Anti-Pollution League, and New Hampshire Sierra Club (Sept. 6, 2011) [hereinafter NRC Staff Answer].

renewal application (LRA) for Seabrook Station, Unit 1 (Seabrook), we deny the motions.

I. BACKGROUND

This proceeding concerns the application of NextEra to renew the operating license for Seabrook, a nuclear power reactor located in Rockingham County, New Hampshire.[3] The proffered new contention challenges the adequacy of the Applicant's environmental report (ER).[4]

Interveners wish to litigate in this adjudicatory proceeding whether the ER for Seabrook must address a recent report by NRC staff members entitled "Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident" (Near-Term Task Force Report).[5] Interveners contend:

> The ER for Seabrook fails to satisfy the requirements of NEPA because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report. As required by NEPA and the NRC regulations, these implications must be addressed in the ER.[6]

The contention is similar to other contentions that various interveners have recently proffered in all or nearly all NRC reactor licensing proceedings.[7] It is based on the fact that, after the events at Japan's Fukushima Dai-ichi site that caused extensive damage in March 2011, the Commission (among other steps taken in response) directed NRC Staff to establish a Near-Term Task Force to review the agency's processes and regulations. The Near-Term Task Force was instructed to determine "whether the agency should make additional improvements to its regulatory system and to make recommendations to the

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[3] The background of the proceeding is more fully described in our memorandum and order of February 15, 2011. LBP-11-2, 73 NRC 28, 35-37 (2011).

[4] Friends/NEC Contention at 4; Beyond Nuclear Contention at 5.

[5] Dr. Charles Miller et al., Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident (July 12, 2011) (ADAMS Accession No. ML111861807) [hereinafter Near-Term Task Force Report].

[6] Friends/NEC Contention at 4. *See also* Beyond Nuclear Contention at 5 (identical except for reference to "Seabrook license renewal" rather than "Seabrook"). Although the contention also refers to "findings," the focus of the contention is clearly on the Near-Term Task Force's recommendations. Interveners assert, for example, that "the Commission could moot the contention by adopting all of the Task Force's recommendations." Friends/NEC Contention at 19; Beyond Nuclear Contention at 28.

[7] *See* Friends/NEC Contention at 3; Beyond Nuclear Contention at 3-4.

Commission for its policy direction."[8] Rather than addressing the underlying facts regarding the accident in Japan and their possible implications concerning the Seabrook LRA, the proffered contention concerns the recommendations of the Near-Term Task Force — which Interveners claim will require a "massive" reevaluation and revision of the NRC's fundamental regulatory scheme.[9]

The Near-Term Task Force completed its work and issued its report, for the Commission's consideration, on July 12, 2011.[10] The Commission has determined that any changes it decides to adopt as a result of the Near-Term Task Force recommendations "will be implemented through our normal regulatory processes."[11] The Commission has also emphasized that "[o]ur understanding of the details of the failure modes at the Fukushima Daiichi site continues to evolve, and we continue to learn more about the extent of the damage at the site."[12]

In support of their proffered contention, Interveners submit the Declaration of Dr. Arjun Makhijani, who is troubled by the implications of the Near-Term Task Force Report. He believes "substantial revisions to the very framework of NRC regulations are needed to adequately protect public health and the environment."[13] He is "concerned that over the past three decades or more, the NRC has not conducted the type of review of the adequacy of its safety regulations that is necessary to update its requirements so as to ensure that NRC safety requirements will provide the minimum level of protection required by the Atomic Energy Act."[14] And he considers "the current inadequacies in the NRC's program for regulation of basic reactor safety to be extraordinarily grave problems."[15] He does not, however, mention Seabrook or relate the impacts of his concerns to the Seabrook LRA.

II. ANALYSIS

Because we think the proffered contention is plainly not admissible, we need not consider whether it was timely filed.

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[8] Friends/NEC Contention at 5 (quoting Near-Term Task Force Report at vii); Beyond Nuclear Contention at 5 (quoting Near-Term Task Force Report at vii).

[9] Friends/NEC Contention at 8; Beyond Nuclear Contention at 9.

[10] Friends/NEC Contention at 2; Beyond Nuclear Contention at 2.

[11] *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 147-48 n.6 (2011).

[12] *Id.* at 146.

[13] Declaration of Dr. Arjun Makhijani Regarding Safety and Environmental Significance of NRC Task Force Report Regarding Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Aug. 8, 2011) at 3.

[14] *Id.*

[15] *Id.* at 4.

We also look past the fact that on its face the contention challenges the content of the Applicant's ER, and mentions only in supporting discussion the NRC Staff's Draft Supplemental Environmental Impact Statement (DSEIS).[16] The purpose of an ER is to assist the NRC in preparing the agency's own environmental analysis.[17] Once the NRC performs its own analysis, the ER is no longer important. Alleged defects in an applicant's ER may be mooted by the content of the NRC's environmental impact statement or (as here) supplemental environmental impact statement.[18]

The relevant question therefore pertains to whether the DSEIS for Seabrook must address the recommendations of the NRC's Near-Term Task Force review of the Fukushima Dai-ichi accident in Japan. If those recommendations constitute relevant "new" and "significant" information concerning the Seabrook LRA, then the DSEIS must address them.[19] To proffer an admissible contention, moreover, Interveners do not have to prevail on the merits.[20] At this stage, they need only demonstrate a genuine dispute on this issue. Interveners' proffered contention, however, fails to raise a genuine dispute that is suitable for an evidentiary hearing before this Board.

The Commission recently addressed a similar issue. Various petitioners (including the Interveners in this case) asked that the NRC conduct "a separate generic NEPA analysis regarding whether the Fukushima events constitute 'new and significant information' under NEPA that must be analyzed as part of the environmental review for new reactor and license renewal decisions."[21] The Commission ruled the request premature.[22] Although the Near-Term Task Force had by that time completed its review and provided its recommendations (as the Commission expressly noted), the Commission explained that "the agency continues to evaluate the accident and its implications for U.S. facilities and the full picture of what happened at Fukushima is still far from clear."[23] The Commission concluded that "we do not know today the full implications of the

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[16] Office of Nuclear Reactor Regulation, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 46, Regarding Seabrook Station, Draft Report for Comment, NUREG-1437 (Aug. 2011) (ADAMS Accession No. ML11213A080).

[17] 10 C.F.R. §§ 51.14(a)(3), 51.71(a).

[18] *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).

[19] 10 C.F.R. § 51.72(a)(2).

[20] *See* LBP-11-2, 73 NRC at 50-51.

[21] *Callaway,* CLI-11-5, 74 NRC at 166-67.

[22] *Id.* at 167.

[23] *Id.*

Japan events for U.S. facilities."[24] Thus, the Commission decided, "any generic NEPA duty — if one were appropriate at all — does not accrue now."[25]

Specifically applying the "new" and "significant" information test set forth in 10 C.F.R. § 51.72(a)(2), the Commission found that the current state of available information (including specifically the Near-Term Task Force Report) did not satisfy that standard. As the Commission emphasized, to trigger further environmental analysis, information must be both "new" and "significant" *and* "it must bear on the proposed action or its impacts."[26] In other words, "the new information must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned."[27] The Commission found "[t]hat is not the case here, given the current state of information available to us."[28] Thus, it concluded: "For these reasons, we decline petitioners' request to commence a generic NEPA review today."[29]

If — as the Commission has ruled — the available information (including specifically the Near-Term Task Force Report) does not at this time constitute "new" and "significant" information for purposes of *generic* environmental analysis, it follows that Interveners have failed to show how the report might constitute "new" and "significant" information for purposes of environmental analysis of renewing the license for Seabrook. Neither the Near-Term Task Force Report nor the declaration of Dr. Makhijani says anything at all about Seabrook, much less tries to link specific recommendations in the Near-Term Task Force Report to specific aspects of the Seabrook LRA.

The contention now before us rests on speculation built on speculation. We do not know which, if any, of the Near-Term Task Force recommendations the Commission might ultimately adopt. The Commission has stated only that, after further study, it "may" determine that regulatory or procedural changes are warranted.[30] Furthermore, we do not know the implications for the Seabrook LRA of whatever recommendations might be adopted. And Interveners provide no guidance.

Because Interveners fail to show how the Near-Term Task Force Report might potentially affect the DSEIS for Seabrook, they plainly have not demonstrated a genuine dispute as to whether the NRC Staff must address the report in its DSEIS. Their contention therefore does not satisfy 10 C.F.R. § 2.309(f)(1)(vi), and for this reason is not admissible. Although we do not adjudicate the merits at this stage,

[24] *Id.*
[25] *Id.*
[26] *Id.*
[27] *Id.* at 167-68 (quotation marks and footnoted citations omitted).
[28] *Id.* at 168.
[29] *Id.*
[30] *Id.* at 161.

a contention must be plausible. A requirement to supplement environmental analysis every time *any* new information (such as recommended but not yet adopted regulatory reform) comes to light "would render agency decisionmaking intractable, always awaiting updated information only to find the new information outdated by the time a decision is made."[31]

The Board appreciates why Interveners may have felt obligated to proffer their contention at this early date. Invariably applicants — and often the NRC Staff — oppose new contentions on lateness grounds. Indeed, both the Applicant and the NRC Staff have done so here.[32] Under our rules, however, a contention must be admissible when it is submitted. We can defer consideration of an admissible contention, where appropriate, but not of an inadmissible one.[33]

That Interveners' proffered contention is not admissible does not mean that the issues raised by the Near-Term Task Force Report are unimportant. They have not yet ripened, however, to the point where they can appropriately be litigated in this adjudicatory proceeding concerning the Seabrook LRA. Perhaps they never will. As Interveners acknowledge, "given the sweeping scope of the Task Force conclusions and recommendations, it may be more appropriate for the NRC to consider them in generic rather than site-specific environmental proceedings."[34]

We recognize that this state of affairs places Interveners in a bind. To avoid the inevitable challenge on lateness grounds, must Interveners regularly resubmit their contention, asking in effect: "Are we there yet?" The Board hopes not. Although it has not seen fit to do so at this time, the Commission has suggested that it may in the future provide further guidance as to when Fukushima-related contentions might be ripe for adjudication in individual reactor cases.[35] And certainly this Board intends, whenever possible, to avoid interpreting the agency's regulations concerning timeliness in a way that penalizes reasonable conduct.

In accordance with the regulations that we are bound to follow, however, and consistent with the ruling of other Licensing Boards that have thus far addressed similar contentions,[36] the Board cannot grant Interveners' motions and admit their proffered contention at this time.

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[31] *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 373 (1989) (footnote omitted).

[32] NextEra Answer at 13-18; NRC Staff Answer at 34-39.

[33] *See Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 443 (2008).

[34] Friends/NEC Contention at 4; Beyond Nuclear Contention at 5.

[35] "Although we do not establish a timetable for future adjudicatory pleadings today, we will monitor our ongoing adjudicatory proceedings and will reassess this determination if it becomes apparent that additional guidance would be appropriate." *Callaway,* CLI-11-5, 74 NRC at 171.

[36] *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), LBP 11-27, 74 NRC 591 (2011).

III. ORDER

For the foregoing reasons:

A. The Friends/NEC Motion to Admit (filed on behalf of Friends of the Coast and New England Coalition) is *denied.*

B. The Beyond Nuclear Motion to Admit (filed on behalf of Beyond Nuclear, Seacoast Anti-Pollution League, and Sierra Club of New Hampshire) is *denied.*

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Paul S. Ryerson, Chairman
ADMINISTRATIVE JUDGE

Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

Dr. Richard E. Wardwell
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 19, 2011

Cite as 74 NRC 612 (2011) **LBP-11-29**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

William J. Froehlich, Chairman
Dr. Anthony J. Baratta
Dr. Kenneth L. Mossman

In the Matter of | **Docket No. 50-335-LA**
(ASLBP No. 11-911-01-LA-BD01)

FLORIDA POWER & LIGHT COMPANY
(St. Lucie Nuclear Power Plant, Unit 1) | **October 19, 2011**

LICENSE AMENDMENT PROCEEDINGS: STANDING TO INTERVENE

In a proceeding regarding the amendment of a license granted under the Atomic Energy Act (AEA), section 189a of the AEA requires the NRC to "grant a hearing upon the request of any person whose interest may be affected by the proceeding, and . . . admit any such person as a party to such proceeding." 42 U.S.C. § 2239(a)(1)(A). To be granted a hearing, a petitioner seeking a hearing must demonstrate standing pursuant to 10 C.F.R. § 2.309(d) and proffer at least one admissible contention in accordance with 10 C.F.R. § 2.309(f). 10 C.F.R. § 2.309(a).

LICENSE AMENDMENT PROCEEDINGS: STANDING TO INTERVENE

In license amendment proceedings, petitioners may not claim "standing simply upon a residence or visits near the plant, *unless* the proposed action quite 'obvi-

ous[ly]' entails an increased potential for offsite consequences." *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 191 (1999) (quoting *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329-30 (1989)) (emphasis added).

LICENSE AMENDMENT PROCEEDINGS: EXTENDED POWER UPRATE PROCEEDINGS; STANDING TO INTERVENE

Extended power uprate (EPU) proceedings necessarily trigger application of the 50-mile proximity presumption given that such license applications entail an obvious increase in the potential for offsite consequences.

STANDING TO INTERVENE

The NRC follows contemporaneous judicial concepts of standing, which call for a particularized showing of "a 'concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision,' where the injury is 'to an interest arguably within the zone of interests protected by the governing statute.'" *Calvert Cliffs,* CLI-09-20, 70 NRC at 915 (citing *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)).

STANDING TO INTERVENE, REPRESENTATIONAL

To demonstrate representational standing, an organization must (1) show that at least one of its members would be affected by the agency's approval of the requested license, (2) identify such members, and (3) establish (preferably through an affidavit) that such members of the organization have authorized it to act as the members' representative and to request a hearing on the members' behalf.

CONTENTIONS, ADMISSIBILITY

Petitioners may not raise in adjudicatory proceedings contentions attacking the agency's rules and regulations (or contentions that are the subject of ongoing rulemakings).

CONTENTIONS, ADMISSIBILITY

The Commission's regulations are "strict by design" in order to "help assure that our hearing process will be appropriately focused upon disputes that can be resolved in the adjudication." *Dominion Nuclear Connecticut, Inc.* (Millstone

Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 233 (2008) (citations omitted). Therefore, to be admissible, contentions must include specific grievances beyond mere notice pleading.

CONTENTIONS, ADMISSIBILITY

The proposed contention does not provide "sufficient information to show that a genuine dispute exists" with the license amendment request (LAR). Additionally, the petition lacks "alleged facts or expert opinions" to support the contention. Because the petitioner neither explains the "factual differences" it has with the applicant's LAR nor provides alleged facts or expert opinions to support them, the contention is deficient under 10 C.F.R. § 2.309(f)(1)(v) and (vi). The proposed contention is thus inadmissible.

LICENSE AMENDMENT PROCEEDINGS

We infer from the structure of 10 C.F.R. § 50.47(a)(1)(i) that a license amendment request does not require an updated or separate emergency plan unless such a plan would be germane to the type of LAR under review or is part of a licensee's periodic update of emergency plans.

LICENSE AMENDMENT PROCEEDINGS

Section 51.53(c)(3) requires a *license renewal* applicant to include in its ER "any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware." It does not apply to license amendment applicants.

MEMORANDUM AND ORDER
(Denying Petition for Leave to Intervene and Request for Hearing)

Before the Licensing Board is a petition for leave to intervene and request for hearing filed by Saprodani Associates (Saprodani) by and through its single member and senior consultant, Thomas Saporito.[1] The petition challenges the license amendment request by Florida Power & Light Company (FPL) to increase the core power level of its St. Lucie Plant Unit 1 nuclear power reactor in St.

[1] Saprodani Associates' Petition for Leave to Intervene and Request for Hearing (Aug. 8, 2011) [hereinafter Petition].

Lucie County, Florida, from 2700 Megawatts thermal (MWt) to 3020 MWt.[2] For the reasons discussed below, we find that Saprodani has demonstrated standing to intervene in this proceeding. However, because it has not proffered at least one admissible contention, we deny Saprodani's hearing request and petition for leave to intervene.

I. BACKGROUND

On November 22, 2010, FPL submitted its application for a license amendment, requesting an "increase in core thermal power [that] will be approximately 12 percent, including a 10 percent power uprate and a 1.7 percent measurement uncertainty recapture, over the current licensed core thermal power level."[3] On June 2, 2011, the NRC issued a notice (later published in the *Federal Register* on June 9, 2011) in which it acknowledged receipt of FPL's license amendment application and provided 60 days from the date of the *Federal Register* notice for interested persons to request a hearing on the application.[4] Saprodani timely filed its hearing request and petition to intervene on August 8, 2011.[5] FPL and the NRC Staff filed answers opposing Saprodani's hearing request and petition to intervene on September 2, 2011.[6] Saprodani did not file a reply to FPL's and the NRC Staff's answers.

II. STANDARDS GOVERNING STANDING AND CONTENTION ADMISSIBILITY

In a proceeding regarding the amendment of a license granted under the Atomic Energy Act (AEA), section 189a of the AEA requires the NRC to "grant a hearing upon the request of any person whose interest may be affected by the proceeding, and . . . admit any such person as a party to such proceeding."[7] To be granted

[2] Florida Power & Light Company, St. Lucie Plant, Unit 1; Notice of Consideration of Issuance of Amendment to Facility Operating License, and Opportunity for a Hearing and Order Imposing Procedures for Document Access to Sensitive Unclassified Non-Safeguards Information, 76 Fed. Reg. 33,789, 33,790 (June 9, 2011).

[3] *Id.* An increase of this magnitude is categorized as an Extended Power Uprate (EPU). *Id.*

[4] *Id.* at 33,790-92.

[5] Petition at 1.

[6] *See* Florida Power & Light Company's Answer Opposing the Petition to Intervene and Request for Hearing of Saprodani Associates (Sept. 2, 2011) at 1-2 [hereinafter FPL Answer]; NRC Staff's Answer to Saprodani Associates' Petition for Leave to Intervene and Request for Hearing (Sept. 2, 2011) at 1 [hereinafter NRC Staff Answer].

[7] 42 U.S.C. § 2239(a)(1)(A).

a hearing, a petitioner seeking a hearing must demonstrate standing pursuant to 10 C.F.R. § 2.309(d) and proffer at least one admissible contention in accordance with 10 C.F.R. § 2.309(f).[8]

A. Standing

To show standing under 10 C.F.R. § 2.309(d), a petitioner's hearing request must state (1) the petitioner's name, address, and telephone number, (2) "[t]he nature of [its] right under the [AEA, the National Environmental Policy Act (NEPA), or any other applicable statute] to be made a party to the proceeding," (3) "[t]he nature and extent of [its] property, financial or other interest in the proceeding," and (4) "[t]he possible effect of any decision or order that may be issued in the proceeding on [its] interest."[9] In evaluating whether these standing requirements have been met, the NRC follows contemporaneous judicial concepts of standing, which call for a particularized showing of "a 'concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision,' where the injury is 'to an interest arguably within the zone of interests protected by the governing statute.'"[10] The Commission has emphasized that once a petitioner successfully demonstrates standing, it "will then be free to assert any contention, which, if proved, will afford [it] the relief [it] seek[s], i.e., the rejection or modification of" an applicant's license in a way that will remedy the petitioner's injuries.[11]

In most licensing proceedings, petitioners are presumed to have standing if they live or have frequent contacts within 50 miles of the facility that is the subject of the proceeding.[12] But in license amendment proceedings, petitioners may not claim "standing simply upon a residence or visits near the plant, *unless* the proposed action quite 'obvious[ly]' entails an increased potential for offsite consequences."[13]

Organizations are permitted to represent their members if they adequately demonstrate representational standing. To do so, an organization must (1) show

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[8] 10 C.F.R. § 2.309(a).

[9] 10 C.F.R. § 2.309(d)(1); *see also Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009).

[10] *Calvert Cliffs,* CLI-09-20, 70 NRC at 915 (citing *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)). The statutes articulating the relevant zone of interests in NRC proceedings are the AEA and NEPA. *See Tennessee Valley Authority* (Sequoyah Nuclear Plant, Units 1 and 2; Watts Bar Nuclear Plant, Unit 1), LBP-02-14, 56 NRC 15, 23 (2002).

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

[12] *See Calvert Cliffs,* CLI-09-20, 70 NRC at 915-16 (citations omitted).

[13] *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 191 (1999) (quoting *Florida Power & Light Co.* (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329-30 (1989)) (emphasis added).

that at least one of its members would be affected by the agency's approval of the requested license, (2) identify such members, and (3) establish (preferably through an affidavit) that such members of the organization have authorized it to act as the members' representative and to request a hearing on the members' behalf.[14] Moreover, each organization

> member seeking representation must qualify for standing in his or her own right; the interests that the representative organization seeks to protect must be germane to its own purpose; and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action.[15]

If a petitioner fails to show standing pursuant to 10 C.F.R. § 2.309(d), a Board may, in the alternative, grant discretionary standing "when at least one requestor/petitioner has established standing and at least one admissible contention has been admitted so that a hearing will be held."[16]

B. Contention Admissibility

Even if a petitioner successfully establishes standing, it must also proffer at least one admissible contention to have its hearing request granted.[17] To be admissible, each contention must:

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;
>
> (ii) Provide a brief explanation of the basis for the contention;
>
> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
>
> (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
>
> (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue;
>
> (vi) . . . [P]rovide sufficient information to show that a genuine dispute exists

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[14] *Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007).

[15] *Id.* An organization may claim standing on its own behalf, but that issue is irrelevant to the circumstances of this proceeding. *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-6, 73 NRC 149, 169 n.13 (2011) (referencing *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 252 (2001)).

[16] 10 C.F.R. § 2.309(e).

[17] *Cf. id.* § 2.309(a), (f).

> with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief . . . .[18]

Petitioners may not raise in adjudicatory proceedings contentions attacking the agency's rules and regulations (or contentions that are the subject of ongoing rule-makings).[19] "[A]ny contention that amounts to an attack on applicable statutory requirements or represents a challenge to the basic structure of the Commission's regulatory process must be rejected."[20] The Commission has emphasized that its contention admissibility requirements are "strict by design" in order to "help assure that our hearing process will be appropriately focused upon disputes that can be resolved in the adjudication."[21] Therefore, to be admissible, contentions must include specific grievances beyond mere notice pleading.[22] Moreover, the Commission has instructed that "[w]hile a board may view a petitioner's supporting information in a light favorable to the petitioner, . . . our contention admissibility rules . . . require the petitioner (not the board) to supply all the elements for a valid intervention petition."[23]

III. BOARD RULING ON HEARING REQUEST

A. Standing

Saprodani claims that it has standing because "granting the license amendment request will result in adverse health and safety risks" to the organization and its member "from emissions of radioactive materials and fission products."[24] Moreover, Saprodani professes to be covered by the 50-mile proximity presumption

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[18] *Id.* § 2.309(f)(1)(i)-(vi).

[19] *Id.* § 2.335(a); *see Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999).

[20] *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 64 (2008).

[21] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 233 (2008) (citations omitted).

[22] *See Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 482 (2010) (citing *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428 (2003)).

[23] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260 (2009).

[24] Petition at 7.

because the organization and its sole member live and work within 50 miles of the St. Lucie Nuclear Power Plant facility.[25] In the alternative, Saprodani asserts it is entitled to discretionary standing under section 2.309(e) because it "will be presenting evidence in connection with the local health, safety, environmental, and social issues created by the [St. Lucie Plant] Unit 1, license amendment request" and "provide local insight, information and evidence that cannot be provided by the Applicant or other parties (if other parties are admitted)."[26] Saprodani further argues that it is entitled to discretionary standing because its interests are unique, no other means are available to protect its interests, it is not raising inappropriate issues, and its participation will not inappropriately widen or delay this proceeding.[27] Finally, Saprodani purports to meet "prudential standing requirements" due to its protection under the AEA and NEPA.[28]

FPL and the NRC Staff argue that Saprodani has not adequately demonstrated organizational, representational, or discretionary standing.[29]

This license amendment proceeding does not automatically implicate the 50-mile proximity presumption afforded to petitioners in reactor construction permit and license renewal proceedings. However, we agree with other licensing boards that have regarded extended power uprate (EPU) proceedings as necessarily triggering application of the 50-mile proximity presumption given that such license applications entail an obvious increase in the potential for offsite consequences.[30] Accordingly, if any Saprodani member falls within the proximity presumption, then Saprodani itself could qualify for representational standing.

It is undisputed that the address of Saprodani member Thomas Saporito, mentioned in the signed Declaration attached to Saprodani's petition, is within 50 miles of the St. Lucie facility.[31] Therefore, he may, on his own behalf, invoke the proximity presumption to intervene in this proceeding.

Saprodani has made the minimal requisite showing for representational standing under the Commission's test in *Palisades*.[32] The proximity of Saprodani's member, Mr. Saporito, to the St. Lucie facility, renders him presumptively affected

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[25] *Id.* at 5. Attached to Saprodani's Petition is a Declaration of its member, Thomas Saporito, stating his address and describing it as within 50 miles of the facility. *See id.,* Exh. 1, Declaration of Thomas Saporito at 1-2 (Aug. 8, 2011) [hereinafter Saporito Decl.].

[26] *Id.* at 8.

[27] *Id.*

[28] *Id.* at 8-9.

[29] FPL Answer at 9-15; NRC Staff Answer at 6-10.

[30] *See PPL Susquehanna LLC* (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 18, *aff'd on other grounds,* 66 NRC 101 (2007); *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 553 (2004).

[31] Saporito Decl. at 1-2; FPL Answer at 7; NRC Staff Answer at 9.

[32] *See Palisades,* CLI-07-18, 65 NRC at 409.

by the agency's approval of FPL's license amendment request, and Saprodani has clearly identified Mr. Saporito in its petition. The fact that Mr. Saporito is the sole member of Saprodani is irrelevant to whether the organization itself may represent him in this proceeding. Although Mr. Saporito does not explicitly authorize Saprodani to represent him, his signature on Saprodani's petition and his attached declaration go beyond mere tacit approval of Saprodani's representation. Saprodani could be more explicit about what its organizational purpose is, but the petition's description of Saprodani's purpose as "protecting the health and safety of the public and the environment" is adequate.[33] Nowhere in Saprodani's petition is there an indication that membership in the organization is contingent on a member's agreement to participate in this legal action. This suffices for the minimal showing of organizational purpose for representational standing. Therefore, we find that Saprodani has representational standing.[34]

B. Contention Admissibility

Saprodani raises four contentions in its petition. In support of each contention, Saprodani alleges only that the Applicant and NRC Staff have violated NEPA, and not the AEA.[35] We therefore interpret Saprodani's contentions as environmental, and not safety, contentions.

To the extent any of Saprodani's contentions complain of any failure by the NRC Staff,[36] the NRC Staff has yet to complete any draft or final environmental or safety review of FPL's LAR. Therefore, to be admissible at this stage in the proceeding, any contention must challenge the application itself.[37]

1. Contention SA-1

> The NRC and the licensee failed to adequately consider and address the impacts of increased stress to the reactor vessel with respect to imbrittlement [sic] of the reactor

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[33] Petition at 9.

[34] Although moot due to our finding of Saprodani's standing, discretionary standing under 10 C.F.R. § 2.309(e) is unavailable to Saprodani because we have not admitted any other party to this proceeding.

[35] Petition at 14-20.

[36] *See infra* Parts III.B.2-.4.

[37] 10 C.F.R. § 2.309(f)(1)(vi); *see also id.* § 2.309(f)(2) ("Contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner."). We note here that although the sufficiency of FPL's application and the NRC Staff's environmental review of that application are proper targets of contentions, the sufficiency of the NRC Staff's safety review of the application is not a proper target of contentions in NRC adjudications. *See id.; Northern States Power Co.* (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 493 n.56 (2010).

> vessel to date; and the consequences of the reactor vessel cracking or shattering as a result of increasing the licensed core thermal power level for Unit 1.[38]

In support of Contention SA-1, Saprodani alleges that FPL's license amendment request (LAR) is deficient under NEPA because it ignores potential environmental impacts resulting from a release of radioactive substances from reactor vessel cracking or shattering in a "loss-of-coolant" core-melt event similar to that which occurred recently in Japan.[39] Saprodani maintains that there are "factual differences concerning the extent and impact of a [loss-of-coolant accident] due to a failure of the nuclear reactor vessel because of increased stress brought by the proposed license amendment request."[40] FPL and the NRC Staff argue that Contention SA-1 is inadmissible because it lacks adequate support and does not raise a genuine dispute with FPL's LAR.[41]

Contention SA-1 can be fairly construed as a contention that FPL's LAR omits required information. However, other than hypothesizing that there will be a "failure of the nuclear reactor vessel because of increased stress brought by the proposed license amendment request,"[42] Contention SA-1 does not provide "sufficient information to show that a genuine dispute exists" with the LAR.[43] Additionally, the petition lacks "alleged facts or expert opinions" to support the contention.[44] Because Saprodani neither explains the "factual differences" it has with FPL's LAR nor provides alleged facts or expert opinions to support them, the contention is deficient under 10 C.F.R. § 2.309(f)(1)(v) and (vi).[45] Contention SA-1 is thus inadmissible.

2. *Contention SA-2*

> The NRC and the licensee failed to adequately consider and address the significant increase in population within a 50-mile area of the SLNP [St. Lucie Nuclear Plant]; and the impacts that a serious nuclear accident would have on the inability of

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[38] Petition at 14.
[39] *Id.* at 14-15.
[40] *Id.* at 15.
[41] FPL Answer at 24-26; NRC Staff Answer at 13-14.
[42] Petition at 15.
[43] 10 C.F.R. § 2.309(f)(1)(vi).
[44] *Id.* § 2.309(f)(1)(v).
[45] *See Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4), LBP-09-3, 69 NRC 139, 154 (2009) (citing *Sacramento Municipal Utility District* (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined,* CLI-94-2, 39 NRC 91 (1994); *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992)).

> the increased populace to timely evacuate from a 50-mile area of the SLNP in connection with increasing the licensed core thermal power level for Unit 1.[46]

Citing a news article from the Associated Press, Contention SA-2 claims that the Environmental Report (ER) of FPL's LAR accounts for neither the increase in population around the St. Lucie facility since it was first licensed nor the local health impacts to such a larger population around the facility during evacuation.[47] Contention SA-2 also states that "if the new and significant health impacts are genuine, it is hard to imagine a more material impact."[48] FPL and the NRC Staff argue Contention SA-2 is inadmissible because it lacks supporting facts or expert opinion, is immaterial to and beyond the scope of this proceeding, and is an impermissible challenge to NRC regulations.[49]

Contention SA-2 fails to address any specific deficiency in the LAR or in the evacuation plans around St. Lucie. The news article cited in Saprodani's petition complains broadly of the ignorance to population growth of *all* nuclear power plants around the country since their initial licensing, rather than raising any criticism of the St. Lucie emergency plans. Saprodani references South Florida's population growth and the fact that St. Lucie Plant Unit 1 "is physically located on Hutchison Island with a two-lane access road in and out,"[50] but fails to explain the relevance of these facts to the proposed EPU. Saprodani might be concerned with the sufficiency of the current St. Lucie evacuation plan, but Contention SA-2 does not raise any challenge to the LAR itself. Therefore, the contention is inadmissible under 10 C.F.R. § 2.309(f)(1)(vi) for not raising a genuine dispute with the LAR.[51]

An EPU such as the one in FPL's LAR changes only a limited portion of FPL's current operating license and we infer from the structure of 10 C.F.R. § 50.47(a)(1)(i) that a license amendment request does not require an updated or separate emergency plan unless such a plan would be germane to the type of LAR under review or is part of a licensee's periodic update of emergency plans.[52] The NRC explicitly requires an emergency plan for initial reactor operating licenses

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[46] Petition at 15.

[47] *Id.* at 16-17.

[48] *Id.* at 17.

[49] FPL Answer at 27-31; NRC Staff Answer at 15-18.

[50] Petition at 16.

[51] *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 639-40 (2004) (affirming licensing board ruling that a failure of petitioner "to cite even a single specific deficiency in the application" precludes satisfaction of the specificity requirement of 10 C.F.R. § 2.309(f)(1)(vi) (internal quotation omitted)).

[52] *See* 10 C.F.R. Part 50, App. E.

but does not require them for reactor operating license renewals.[53] We view the scope of the agency's review of FPL's LAR as more analogous to the limited licensing review conducted for a license renewal request than to a request for a construction permit. Saprodani does not explain why the LAR itself should result in any changes to the evacuation plan. Thus, Saprodani's concern in Contention SA-2 is not an issue that is material to the NRC's licensing decision in this proceeding. Consequently, Contention SA-2 is also inadmissible for failing to meet the materiality requirement of 10 C.F.R. § 2.309(f)(1)(iv).[54]

3. Contention SA-3

> The NRC and the licensee failed to adequately consider and address the significant increase in heat generated by the SLNP and discharged into the environment via the surrounding waters of the SLNP; and the harmful affects [sic] on marine life and vegetation in connection with increasing the licensed core thermal power level for Unit 1.[55]

Contention SA-3 asserts that FPL's ER does not "sufficiently assess . . . the impacts of continued operation of the [St. Lucie Plant] Unit 1, at a greater core thermal power level on the local environmental justice communities and the marine life and vegetation in the waters around the nuclear plant."[56] Moreover, Contention SA-3 insists that the ER "is inadequate because it fails to consider the lack of fish consumption advisories, or awareness of associated risks among the minority and low-income populations."[57] Saprodani surmises that fishermen in the water around St. Lucie do not know that the food they catch may contain radioactive isotopes and that there has been no warning from FPL regarding this threat.[58]

FPL and the NRC Staff counter that Contention SA-3 is inadmissible for being immaterial to the NRC's licensing decision in this proceeding, lacking the requisite support, and not raising a genuine dispute of material fact or law.[59]

FPL's ER discusses the structure of its water discharge systems and describes the effects that increased thermal discharge will have on certain species around

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[53] *See* 10 C.F.R. § 50.47(a)(1)(i).

[54] If Saprodani is concerned about the sufficiency of the ongoing oversight of St. Lucie and its current evacuation plan, it has the option of requesting a modification, suspension, or revocation of FPL's operating license under 10 C.F.R. § 2.206.

[55] Petition at 17.

[56] *Id.* at 17-18.

[57] *Id.* at 18.

[58] *Id.*

[59] FPL Answer at 31-35; NRC Staff Answer at 19-21.

the plant.[60] The ER also details the effects of the EPU on radiological discharges and offsite radiation doses.[61] Contention SA-3 does not explain what is flawed with these descriptions. Therefore, Contention SA-3 does not raise a genuine dispute of material fact or law with FPL's LAR and is inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(vi). Furthermore, Contention SA-3 does not provide any alleged facts or expert opinion that challenge FPL's analysis. It is also, therefore, inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(v).

4. Contention SA-4

> [T]he NRC and the licensee failed to adequately consider and address the alternatives to the license amendment request to offset the need for increased output capacity of the SLNP Unit 1, through energy conservation, installation of energy efficient appliances, and renewable energy sources.[62]

Contention SA-4 asserts that wind and solar power generation, installation of energy efficient electrical appliances, and energy conservation "would actually reduce the load-demand on FPL's electrical grid to the extent that FPL would be forced to shut-down existing power plants for lack of need."[63] Thus, Contention SA-4 maintains that FPL's ER has inadequately examined alternative energy, energy efficiency, and energy conservation as alternatives to the requested EPU.[64] FPL and the NRC Staff respond that Contention SA-4 is inadmissible for failure to supply alleged factual or expert support for its claims and for not raising a genuine dispute of material fact with FPL's LAR.[65]

In support of Contention SA-4, Saprodani references 10 C.F.R. § 51.53(c)(3) for the proposition that a license amendment applicant must prepare an ER "assess[ing] the potential for renewable energy and energy efficiency and conservation as an alternative to the license amendment request."[66] But section 51.53(c)(3) merely requires a *license renewal* applicant to include in its ER "any new and significant information regarding the environmental impacts of license

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[60] *See* Attachment 2, License Amendment Request, Extended Power Uprate, Supplemental Environmental Report, Florida Power & Light, St. Lucie Nuclear Plant, Units 1 and 2 at 2-19 to 2-22 [hereinafter ER].

[61] *Id.* at 2-23 to 2-30.

[62] Petition at 19.

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

[64] *Id.* at 20.

[65] FPL Answer at 35-39; NRC Staff Answer at 21-23.

[66] Petition at 19.

renewal of which the applicant is aware."[67] It does not apply to license amendment applicants such as FPL in the instant proceeding.[68]

Nevertheless, Saprodani may challenge the accuracy and sufficiency of FPL's LAR, of which its ER is a part. Contention SA-4 does not, however, raise any specific challenge to the adequacy of the cost-benefit analysis in the ER or FPL's reference to the alternatives and energy conservation analyses in the Florida Public Service Commission's ruling on FPL's Petition to Determine Need.[69] Consequently, the contention does not present a genuine dispute of material fact with FPL's LAR and is thus deficient under the requirements of 10 C.F.R. § 2.309(f)(1)(vi). Moreover, Saprodani fails to allege facts or expert opinion to support its assertion that renewable electricity sources and conservation measures could eliminate the need for FPL's EPU, as required by 10 C.F.R. § 2.309(f)(1)(v). Therefore, Contention SA-4 is inadmissible.

IV. CONCLUSION

For the foregoing reasons, we find that Saprodani Associates has demonstrated standing to intervene in this proceeding pursuant to 10 C.F.R. § 2.309(d) but that it has failed to proffer at least one admissible contention pursuant to 10 C.F.R. § 2.309(f). Accordingly, we *deny* Saprodani Associates' petition for leave to intervene and hearing request.

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

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[67] 10 C.F.R. § 51.53(c)(3)(iv).

[68] *Id.* § 51.53(b).

[69] *See* ER at 2-6 to 2-7, 2-15 to 2-16.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD[70]

William J. Froehlich, Chairman
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Dr. Kenneth L. Mossman
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 19, 2011

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[70] A copy of this Memorandum and Order was sent this date by the agency's E-Filing System to (1) Counsel for the NRC Staff; (2) Counsel for FPL; and (3) Thomas Saporito, representative of Saprodani Associates.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Michael M. Gibson, Chairman
Dr. Richard F. Cole
Brian K. Hajek

In the Matter of

Docket No. 40-8943
(ASLBP No. 08-867-08-OLA-BD01)
(License Renewal)

CROW BUTTE RESOURCES, INC.
(In Situ Leach Facility, Crawford, Nebraska)

October 31, 2011

COMMISSIONERS, AUTHORITY; DELAY OF PROCEEDING

The Commission, but not the Licensing Board, has the power to address a protracted delay in the proceeding and to direct, if so inclined, appropriate remedial measures.

DELAY OF PROCEEDING

The extreme delay in the completion of the Staff's environmental review, and thus the equal delay in hearing the Intervenors' claim of injury, raises issues of compliance with section 189a of the Atomic Energy Act. It is reasonable to conclude that Congress assumed that individuals establishing a right to be heard in opposition to a license application would be heard with reasonable expedition. A delay exceeding 3 years, and possibly extending to 4 years or more, hardly so qualifies. Particularly is this the case where the petitioner is an Indian Tribe, to which the federal government owes a fiduciary duty.

NRC STAFF REVIEW

The licensing boards were long ago informed by the Commission that they are not empowered to superintend, to any extent, the conduct of Staff technical reviews. *See, e.g., Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 67 (2004).

MEMORANDUM
(Bringing Matter of Concern to Commission's Attention)

This Licensing Board has before it the application of Crow Butte Resources, Inc. (Crow Butte) for a renewal of the materials license for its *in situ* leach (ISL) uranium recovery operation located in Crawford, Nebraska.[1] Although the license was scheduled to expire more than 3 1/2 years ago, the recovery operation continues today under its authority. This is so despite the fact that there is yet to be an evidentiary hearing on the claim of the intervenor Oglala Sioux Tribe (Tribe), reflected in contentions found admissible by the Board almost 3 years ago, alleging that the recovery operation is contaminating the water on the reservation upon which its members reside.[2] As a consequence of that contamination, the Tribe asserts, Tribal members are suffering substantial physical harm through ingestion of contaminated water that has migrated from the Crow Butte site to the reservation's water supply.[3]

The purpose of this memorandum is to bring to the Commission's attention a potential deprivation of the Tribe's hearing rights guaranteed to it by section 189a of the Atomic Energy Act.[4] As explained below, the Commission, but not this Board, has the power to address the matter and to direct, if so inclined, appropriate remedial measures.

I. BACKGROUND

The Crow Butte license was first issued in 1988 for a 10-year term and then

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[1] *See* Request for License Renewal of Source Materials License SUA-1534 — Crow Butte Resources, Inc. (Letter from Stephen P. Collings, President, Crow Butte Resources, Inc., to Charles L. Miller, Director, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, RE: Request for License Renewal Docket No. 40-8943, License No. SUA-1534) (Nov. 27, 2007) (ADAMS Accession No. ML073470645).

[2] *See* LBP-08-24, 68 NRC 691 (2008).

[3] *See* Request for Hearing and/or Petition to Intervene, Oglala Sioux Tribe (July 28, 2008) at 7-8, 16-21 [hereinafter Tribe Petition].

[4] *See* Atomic Energy Act § 189a(1)(A), 42 U.S.C. § 2239(a)(1)(A).

renewed in 1998 for an additional 10 years. A second renewal application that is now in issue was filed on November 27, 2007, some 3 months before the license's scheduled expiration on February 28, 2008. Having been submitted at least 30 days in advance of that expiration date, the application enables Crow Butte to continue to operate under the aegis of the license until the agency decides whether to grant the renewal.[5]

On March 28, 2008, the NRC Staff accepted the renewal application and, on May 27, 2008, a notice of opportunity for hearing to contest the license renewal was published in the *Federal Register*.[6] On July 28, 2008, several hearing requests were received in response to that notice, including that of the Tribe.[7] On August 14, 2008, this Board was established and, on November 21, 2008, issued its decision that, among other things, determined the Tribe had standing and admitted its environmental contentions A, C, and D.[8]

For present purposes, it is not necessary to summarize the content of those contentions. It suffices to reiterate that they carried forward the Tribe's concern that the Crow Butte uranium recovery operation over the course of more than 20 years was causing the Tribe members physical harm.

On January 8, 2009 — a month and a half after the grant of the Tribe's hearing request and the admission of its three environmental contentions — the Board entered an order in which it, among other things, (1) noted that the Staff then estimated a December 2009 date for the completion of its final environmental review document; and (2) directed the Staff to file brief monthly reports advising the Board whether the then-estimated date for that completion had been changed or become more definite.[9] In compliance with that directive, status reports have been submitted each month beginning with January 2009 and continuing, 34

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[5] *See* 10 C.F.R. § 40.42(a); *see also* 5 U.S.C. § 558(c) ("When the licensee has made timely and sufficient application for a renewal . . . , a license with reference to an activity of a continuing nature does not expire until the application has been finally determined by the agency."). This provision that a materials license continues in effect if the renewal application is filed no later than 30 days before the expiration of the license is in marked contrast with the time allotted for other types of NRC licenses. For example, a power reactor licensee may preserve its license by filing a renewal application at least 5 years before its license is set to expire, affording the Staff ample time to complete the required environmental and safety reviews. *Cf.* 10 C.F.R. § 2.109(b); Nuclear Power Plant License Renewal, 56 Fed. Reg. 64,943, 64,962-63 (Dec. 13, 1991) ("The Commission believes that the 30-day deadline for timely renewal . . . would not provide the NRC a reasonable time to review an application for a renewed operating license for a nuclear power plant.").

[6] Notice of Opportunity for Hearing, Crow Butte Resources, Inc., Crawford, NE, In Situ Leach Recovery Facility, 73 Fed. Reg. 30,426 (May 27, 2008).

[7] *See* Tribe Petition; Consolidated Request for Hearing and Petition for Leave to Intervene (July 28, 2008; Request for Hearing and Petition for Leave to Intervene, Oglala Delegation of the Great Sioux Nation Treaty Council (July 28. 2008).

[8] LBP-08-24, 68 NRC 691.

[9] Initial Scheduling Order (Jan. 8, 2009) at 2, 4 (unpublished).

months later, with the most recent report furnished to the Board on October 14, 2011.

Eleven of those status reports informed the Board of slippages in the estimated date of completion of the final environmental review document. As a result, the Staff now estimates that the document will not surface until August 2012, 2 years and 8 months after the Staff's initial date for completion.[10]

We have included an Appendix to this Memorandum listing the date upon which each of those eleven reports was submitted, together with the explanation (if any) given by the Staff for the announced slippage. As will be seen, none of the very few provided explanations was to the effect that the slippage was occasioned by limited Staff resources. One of them (June 2009) did, however, attribute the slippage reported therein to "delays in receiving responses to Staff's requests for additional information."[11]

In March 2011, following the Staff's ninth report of a slippage in the estimated date for completion of the final environmental review document, we issued a Memorandum requesting the Staff to submit an explanation for the continuing delays.[12] In response, the Staff reported that it "is currently taking steps necessary to identify the presence of historic properties within the area" in accordance with the National Historic Preservation Act,[13] and that it had scheduled a meeting to consult with affected Indian Tribes in June 2011.[14] The Staff did not give any reason why these actions had not been initiated long before June 2011.[15] Finally, the Staff notified us in its response that its projected date for completing the environmental review document had been pushed back yet again, from August to December 2011.[16]

In the Staff's most recent report, the estimated date for completion has further slipped from this December to next August, a period of 8 months. We are told that it is taking "significantly longer than previously anticipated" for the Staff to fulfill

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[10] *See* NRC Staff's Letter to the Atomic Safety and Licensing Board (Oct. 14, 2011) [hereinafter October 2011 Status Report].

[11] NRC Staff's Letter to the Atomic Safety and Licensing Board (June 16, 2009) at 1.

[12] Licensing Board Memorandum (Requesting Report from the NRC Staff) (Mar. 29, 2011) at 4 (unpublished).

[13] 16 U.S.C. § 470 et seq.; in addition to the National Historic Preservation Act, such properties may also be protected by the Native American Graves Protection and Repatriation Act (NAGPRA), 25 U.S.C. § 3001 et seq.; and by the Archaeological Resources Protection Act (ARPA), 16 U.S.C. § 470aa et seq. *See also* LBP-08-24, 68 NRC at 713 & n.105.

[14] NRC Staff's Submittal in Response to March 29, 2011 Memorandum Requesting Report from the NRC Staff (Apr. 15, 2011) at 4-5.

[15] At oral argument on October 1, 2008 (2 months before the Staff announced its expected completion date for the final environmental review document to be December 2009), the Staff informed the Board that it would undertake its review of cultural resources in consultation with the Tribe. Tr. at 363-64.

[16] *Id.* at 5.

its statutory obligation to identify protected historic properties.[17] Accordingly, the Staff recently requested Crow Butte to compile and to proffer "information regarding the identity and location of traditional cultural properties that could potentially be affected by" the grant of the license renewal application.[18] We are further informed that the Staff expects Crow Butte to provide the requested information by May 2012.[19]

II. BOARD CONCERN

It is now almost 3 full years since, on November 21, 2008, this Board determined that the Tribe was entitled to a hearing on the merits of its claim alleging that the Crow Butte uranium recovery operation is contaminating the water that it counts upon for drinking and other purposes and "poses a serious health and safety risk to the residents of the [Pine Ridge Indian] Reservation."[20] Not only has this claim not received to date that hearing but also, as matters now stand, it will be at least another 9 months before the Staff will complete its final environmental review document that always must precede the conduct of hearings on environmental issues.[21]

Yet, under the governing Commission regulation, having submitted its license renewal application more than 30 days prior to the scheduled expiration of its current license in February 2008, Crow Butte is allowed to continue operations under that license.[22] At this stage of the proceedings, it matters not that the Tribe might be able to establish, once a hearing is eventually held, that its claim is meritorious and, therefore, its members might well have been sustaining additional grievous injury while the Staff conducted its environmental review the completion of which has, to date, been extended twelve separate times.

In our view, the extreme delay in the completion of the Staff's environmental review, and thus the equal delay in hearing the Tribe's claim of serious physical injury stemming from Crow Butte's operations, raises statutory compliance issues. It is reasonable to conclude that, in enacting section 189a of the Atomic Energy Act, Congress assumed that individuals establishing a right to be heard in opposition to a license application would be heard with reasonable expedition. A delay exceeding 3 years, and possibly extending to 4 years or more, hardly so

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[17] October 2011 Status Report at 1.

[18] *Id.*

[19] *Id.*

[20] Tribe Petition at 20.

[21] *See* 10 C.F.R. § 2.332(d); *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-07-17, 65 NRC 392, 394 (2007).

[22] 10 C.F.R. § 40.42(a).

qualifies. Particularly is this the case where the federal government bears a trust responsibility to the Tribe, and the NRC, as a federal agency, owes a fiduciary duty to the Tribe and its members.[23]

Despite the continued Crow Butte operation in the face of the Tribe's claim of resultant injury, we have watched the Staff submit one status report after another announcing still further delay in the completion of its environmental review. We have previously requested the Staff to explain these considerable delays, but our request has stanched nothing — the delays continue. Had we possessed the authority to do so, we would have insisted upon a satisfactory explanation for every slippage of the completion date in light of the Tribe's enhanced entitlement to an expeditious hearing, given the continued Crow Butte operation and the fact that Crow Butte had every incentive to endeavor to put off the hearing for as long as possible.[24] That consideration should have led, but apparently did not lead, the Staff to keep Crow Butte's feet to the fire in supplying requested information.

Particularly remarkable is the Staff's justification in its most recent report for the additional 8-month slippage in the completion of the environmental review that makes it unlikely a hearing on environmental issues will take place before very late 2012 or 2013. For one thing, we see absolutely no reason why the identification of historic properties should not have been completed years ago.[25] Be that as it may, now giving Crow Butte more than 6 months to produce the additional requested information will exacerbate what is already a several-year delay in affording the Tribe an opportunity to be heard on the merits of its claim that its members are being seriously and adversely affected by the Crow Butte uranium recovery operations.

The licensing boards were, however, long ago informed by the Commission that they are not empowered to superintend, to any extent, the conduct of

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[23] *United States v. Mitchell,* 463 U.S. 206, 224 (1983); *Seminole Nation v. United States,* 316 U.S. 286, 296-97 (1942).

[24] This is particularly so when the 10-year renewal period will be calculated from the date the renewal is issued. In effect, if Crow Butte's license is ultimately renewed (in 2012 or later), it will have been able to operate for at least 4 years (i.e., February 2008 [the date its license was scheduled to expire] to August 2012 [the current projected date of the environmental report]) after the original expiration date of its current license.

[25] Indeed, the Tribe pled a contention that involved historic properties and tribal artifacts (Tribal Environmental Contention B), alleging that for years preceding Crow Butte's renewal application, the NRC Staff had failed to fulfill its statutory obligation under the National Historic Preservation Act to consult with the Tribe regarding the cultural resources that Crow Butte itself has acknowledged encountering on its mining site. Although the Board admitted this contention, the Commission reversed, holding that the contention was premature. CLI-09-9, 69 NRC 331, 348-51 (2009). As a consequence, once the Staff completes its environmental analysis, if the Tribe remains unsatisfied with the results of the consultative process, a new contention could be filed, which, in turn, would occasion even further delay in affording a hearing to the Tribe on its contentions.

Staff technical reviews.[26] Nevertheless, it seems apparent to this Board that the environmental review has been unduly protracted to the unwarranted detriment of the Tribe, and accordingly, the Commission might deem it appropriate to ensure that the Staff will give priority to the conduct and completion of environmental reviews where, as here, the applicant for license renewal is allowed to continue operations under its license in the face of a serious challenge to renewal.

THE ATOMIC SAFETY AND
LICENSING BOARD[27]

Michael M. Gibson, Chairman
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Brian K. Hajek
ADMINISTRATIVE JUDGE

Rockville, Maryland
October 31, 2011

[26] *See, e.g., Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 67 (2004).

[27] Copies of this Memorandum were sent this date by the agency's E-Filing system to the counsel/representatives for (1) applicant Crow Butte Resources, Inc.; (2) Consolidated Petitioners; (3) NRC Staff; (4) Oglala Delegation of the Great Sioux Nation Treaty Council; and (5) Oglala Sioux Tribe.

APPENDIX

Summary of Monthly Status Reports

NRC Staff Status Report Date	Predicted Date of Issuance of the EA/EIS	Staff Explanation for Delay	Cumulative Delay
January 2009	December 2009	—	—
June 2009	February 2010	Delays in receiving responses to Staff's requests for additional information	2 months
October 2009	May 2010	None	5 months
February 2010	June 2010	The necessity of having to reschedule public meetings	6 months
May 2010	July 2010	None	7 months
June 2010	November 2010	None	11 months
November 2010	December 2010	None	12 months
December 2010	April 2011	None	16 months
January 2011	June 2011	None	18 months
March 2011	August 2011	None	20 months
April 2011	December 2011	Need to consult with the Tribes to identify historic properties under section 106 of the National Historic Preservation Act	24 months
October 2011	August 2012	Identification of historic properties taking significantly longer than previously anticipated. "Staff recently requested that the Applicant compile and proffer information regarding the identity and location of traditional cultural properties that could potentially be affected by the proposed project . . . . Staff expects to receive the requested information from the Applicant by May 2012."	32 months

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. 63-001-HLW**

U.S. DEPARTMENT OF ENERGY
(High-Level Waste Repository) **November 29, 2011**

SUA SPONTE REVIEW

The Commission disfavors requests to invoke its inherent supervisory authority over adjudications.

PROCEDURE: SUBPART J

The procedural rule governing appeals in a 10 C.F.R. Part 2, Subpart J proceeding provides for review only in the limited circumstances prescribed in the rule.

LICENSING BOARDS, AUTHORITY

The Commission generally defers to the Board on case management issues. *See generally* 10 C.F.R. § 2.319.

MEMORANDUM AND ORDER

The Staff has requested that we reverse two related Board orders issued

April 11, 2011, and June 9, 2011, directing the parties to submit their Licensing Support Network (LSN) document collections to the NRC for preservation.[1] As discussed below, we deny the Staff's request.

On February 18, 2011, the LSN Administrator notified Construction Authorization Board 04 that the funding to support the LSN would likely end by the close of fiscal year 2011.[2] In response, on April 11, 2011, the Board directed the parties to submit their LSN document collections to the NRC's Office of the Secretary by August 31, 2011. The Board further directed the Office of the Secretary to install the documents in a separate LSN docket library in the Agencywide Documents Access and Management System (ADAMS) for public access via the agency's website.[3]

The Staff requested reconsideration, arguing that the Board's order conflicts with policy decisions the Commission made when enacting the rules that created the LSN.[4] The Staff argued that, in creating the LSN, the Commission specifically rejected a centralized system,[5] and argued that the order imposed "significant financial burdens on the NRC without addressing budgetary and administrative issues."[6]

In response to the Staff's Reconsideration Motion, the Board modified its order on June 9, 2011, to relieve the Staff from the obligation to provide its document collection to the Secretary, because the Staff's collection already is available

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[1] NRC Staff Petition for the Commission to Exercise Its Inherent Supervisory Authority to Review April 11 and June 9, 2011 Board Orders (June 20, 2011). *See* Order (Concerning LSNA Memorandum and Parties' LSN Document Collections) (Apr. 11, 2011) (April 11 Order) (unpublished); Order (Granting in Part and Denying in Part Reconsideration Motion) (June 9, 2011) (June 9 Order) (unpublished). Nye County, Nevada, opposes the Staff's request; the State of Nevada takes no position. *See* Nye County, Nevada's Response in Opposition to NRC Staff's June 20, 2011 Petition for Review of Board Orders (June 30, 2011); State of Nevada Answer to NRC Staff Petition for the Commission to Exercise Its Inherent Supervisory Authority to Review April 11 and June 9, 2011 Board Orders (June 30, 2011).

[2] The LSN Administrator subsequently advised the Board that the LSN components operated by the Atomic Safety and Licensing Board Panel would cease operations on or about August 5, 2011. *See* Memorandum from Daniel J. Graser, LSN Administrator, to the Administrative Judges, "Shutdown of the Licensing Support Network" (July 26, 2011). The Board, in turn, provided additional direction to the LSN Administrator, the Secretary, and the parties based on this notification. *See* Order (Concerning LSNA July 26, 2011 Memorandum) (July 28, 2011) (unpublished) (July 28 Order). The LSN system is now shut down due to lack of funds.

[3] April 11 Order at 3.

[4] *See* NRC Staff Request for Leave to File Motion for Reconsideration and Motion for Reconsideration of the Board's April 11, 2011 Order, or Petition for Certification (Apr. 21, 2011) (Reconsideration Motion), at 5.

[5] *See id.* at 7-8 (citing Licensing Proceedings for Receipt of High-Level Radioactive Waste at a Geologic Repository: Licensing Support Network, Design Standards for Participating Websites, 66 Fed. Reg. 26,453-54 (May 31, 2001)).

[6] *Id.* at 7.

on ADAMS.[7] The Board denied the remainder of Staff's request. The Board observed that it expected the Secretary to comply only to the extent that funds were available to do so.[8] The Board further pointed out that, while it had directed the parties to make their documents available to the Secretary by August 31, 2011 (1 month before the then-anticipated shutdown of the LSN), it did not require the Secretary to make the documents available in ADAMS by any particular date. The Board reasoned that "[t]he April 11 order imposes no deadline on the Secretary and requires no actions for which funding is not available."[9]

As the Staff recognizes, the particular NRC rules governing this high-level waste proceeding do not contemplate the kind of interlocutory review that the Staff seeks.[10] As we observed earlier in this proceeding, the rule in question, 10 C.F.R. § 2.1015, provides for review only in the limited circumstances prescribed by the rule itself.[11] Those circumstances are not present here; we therefore decline to consider the Staff's request.

In any event, however, were the appeal properly before us, the Board's handling of this matter has been reasonable, and we would not be inclined to disturb the challenged decisions as a matter of discretion.

The LSN was indeed intended to be primarily a discovery tool, enabling parties to quickly view materials generated by the others without the time delays associated with traditional discovery. Among the considerations the Commission stated in establishing the LSN was to "allow full text search and retrieval access to the relevant documents for all parties and potential parties to the HLW repository licensing proceeding."[12] A readily available search and retrieval function is now lost, since the LSN has been discontinued.

Aside from the Staff (who has been relieved of its obligations under the April 11 Order), the record reflects that no party has objected to the Board's direction regarding preservation of the LSN collection. Notably, DOE, whose documents make up 98.8% of the LSN collection,[13] has complied with the Board's

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[7] *See* June 9 Order at 6.

[8] *Id.* at 7.

[9] *Id.*

[10] *See* 10 C.F.R. § 2.1015.

[11] *See* CLI-10-10, 71 NRC 281, 283 (2010). The Staff asks that we invoke our inherent supervisory authority over adjudications. We disfavor such requests. *See, e.g., U.S. Department of Energy* (High-Level Waste Repository), CLI-10-13, 71 NRC 387, 388 n.6 (2010) (citing *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-09-6, 69 NRC 128, 138 (2009)).

[12] 66 Fed. Reg. at 29,453.

[13] *See* Memorandum from Daniel J. Graser, LSN Administrator, to the Administrative Judges, "Issues Regarding Funding for Continued Operation of the Licensing Support Network" (Dec. 17, 2009).

April 11 Order.[14] And all other participants (save the Staff, whose LSN collection as noted above, already is on ADAMS) have transmitted their LSN collections to the Secretary.[15] Further, DOE and other parties have committed to maintain

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[14] DOE requested relief from certain technical criteria associated with submittal of its LSN collection, which the Board granted. *See* U.S. Department of Energy's Motion for Clarification and Status Report Regarding the Board's Order Dated April 11, 2011 (Apr. 21, 2011); Order (Granting DOE's Motion for Clarification) (May 13, 2011) (unpublished). DOE subsequently transmitted its LSN document collection to the Office of the Secretary in four installments. *See* The Department of Energy's Notice of Submission of LSN Document Collection (Aug. 31, 2011).

On June 10, the Board directed the parties to make good-faith efforts to access LSN documents relevant to the depositions of certain previously identified "Phase I" witnesses, specifically directing DOE, Nevada, and other parties wishing to participate in those depositions to endeavor to identify and obtain documents from the LSN that they might wish to use in deposing those witnesses. The Board directed the parties defending those depositions to make efforts to identify and obtain LSN documents that must be indexed for the benefit of other parties pursuant to 10 C.F.R. § 2.1019(i), and to circulate those indices "as soon as practicable." *See* Order (Regarding Use of the LSN) (June 10, 2011) (unpublished). DOE moved for reconsideration of the Board's June 10 Order and sought rescission of the indexing requirement, noting, among other things, that it planned to provide Nevada with a copy of its public LSN collection, and make available to other parties copies of that collection upon request. *See* U.S. Department of Energy's Motion for Leave to File Motion for Reconsideration of June 10, 2011 CAB Order (June 20, 2011), at 2. Nevada supported DOE's request, also noting "the intent of the parties to make their LSN collections available to each other . . . ." *See* State of Nevada Answer to DOE Motion for Leave to File Motion for Reconsideration of June 10, 2011 CAB Order (June 30, 2011), at 6. The Board granted DOE's motion following receipt of an agreement between DOE and Nevada that memorialized their plan to exchange document collections, and in which DOE represents that it will make available its LSN collection to the other parties upon request, at a reasonable cost. *See* Order (Granting DOE's Partial Reconsideration Motion) (July 18, 2011) (unpublished). *See generally* Department of Energy's and State of Nevada's Joint Response to July 7, 2011 CAB Order (July 12, 2011). Given that the Secretary is not bound to create the new stand-alone LSN database by a particular time, this agreement (and any similar exchanges of information among the parties) might facilitate Phase I discovery if that becomes necessary or appropriate. We note that the Board provided additional case management direction to facilitate access to LSN documents. *See generally* July 28 Order.

[15] *See generally* Notice of NARUC Submission of LSN Documents to the Secretary as per the April 11, 2011 Construction Authorization Board Order (Aug. 9, 2011); Aiken County's Notice of Submission of Licensing Support Network Documents (Aug. 12, 2011); Notice of the State of Nevada's Submission of LSN Documents to the Secretary per the April 11, 2011 CAB Order (Aug. 15, 2011); Notice of Joint Timbisha Shoshone Tribal Group's Submission of Licensing Support Documents (Aug. 18, 2011); Notice of Clark County, Nevada Submission of Licensing Support Network Documents to the Secretary per the April 11, 2011 Construction Authorization Board Order (Aug. 19, 2011); Nye County Notice of Submission of LSN Documents (Aug. 19, 2011); Nuclear Energy Institute Notice of Submission of LSN Documents to the Secretary in Accordance with the April 11, 2011 Construction Authorization Board Order (Aug. 19, 2011); State of South Carolina Notice of Submission of LSN Documents (Aug. 23, 2011); Notice of the County of Inyo's Submission of LSN Documents to the Secretary per the April 11, 2011 CAB Order (Aug. 23, 2011); White

(Continued)

their LSN document collections for the duration of this proceeding.[16] That the Secretary is storing these materials until funding to develop and operate an LSN document library in ADAMS becomes available does not relieve the parties of their commitments.

Consistent with our direction, the Board has suspended this proceeding.[17] Given the lack of budgeted funds, the LSN has been shut down,[18] and the Board has taken reasonable measures to ensure that documents necessary for the proceeding

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Pine County Certification of Accuracy and Completeness of Licensing Support Network Document Collection Submission (Aug. 23, 2011); Eureka County's Notice Regarding Submission of LSN Document Collection (Aug. 24, 2011); Notice of Prairie Island Indian Community (PIIC) Submission of LSN Documents to the Secretary in Accordance with the April 11, 2011 Construction Authorization Board Order (Aug. 24, 2011); Notice of Lincoln County, Nevada Submission of Licensing Support Network Documents to the Secretary per the April 11, 2011 Construction Authorization Board Order (Aug. 26, 2011); The California Energy Commission's Notice of Submission of LSN Document Collection (Aug. 26, 2011); State of Washington Notice of Submission of Licensing Support Network Documents (Aug. 29, 2011); Florida Public Service Commission Response to Requirements of April 11, 2011, Order Regarding LSN Documents (Aug. 30, 2011); Native Community Action Council's Notice of Submission of Licensing Support Network Documents to the Secretary per the April 11, 2011 CAB Order (Aug. 30, 2011); Four Nevada Counties' Notice of Submission of Licensing Support Network Documents to the Secretary per the April 11, 2011 CAB Order (Aug. 31, 2011). *See also* Memorandum from Daniel J. Graser, LSN Administrator, to the Administrative Judges, "CD Submission of LSN Accession Numbers/Participant Access Numbers and Transmittal of DOE License Application Supporting Documents Identifiers" (Aug. 8, 2011) (notifying the Board that the LSN Administrator had provided to the Secretary (and to the parties, if requested) a compact disk containing the full list of LSN Accession Numbers and corresponding Participant Accession Numbers as of August 5, 2011, and attaching a "finding tool" containing information for the 196 primary references to the construction authorization application); Order (Concerning Preservation of Certain LSN Documents) (Sept. 16, 2011) (unpublished) (directing the LSN Administrator to submit to the Secretary redacted Employee Concern Program Documents, and directing each party to retain all documentary material in its possession represented in the LSN only by bibliographic header information).

[16] *See* U.S. Department of Energy Answers to ASLB Questions from Order (Questions for Several Parties and LSNA) Dated April 21, 2010 (May 24, 2010) (DOE May 24 Answers), at 22. *See also id.* at 44, 47; Order (Questions for Several Parties and LSNA) (Apr. 21, 2010) (unpublished) at Appendix A, noting that all parties (except the Staff and DOE) had committed to store their LSN collections on a compact disk. Other governmental participants also may be subject to particular records retention obligations. *See, e.g.,* County of Inyo's Response to December 22, 2009 ASLB Order Regarding Disposition of LSN Documents (Jan. 22, 2010) (Inyo County would retain LSN documents in accordance with California law). The Department of Energy has independent records retention obligations under the Federal Records Act (the "Federal Records Act" is the common name of a series of statutes that govern the creation, management, and disposal of records by federal agencies. *See* 44 U.S.C. §§ 2101-18, 2901-09, 3101-07, 3301-24).

[17] *See* LBP-11-24, 74 NRC 368, 370 (2011); CLI-11-7, 74 NRC 212, 212 (2011). The Staff focuses much of its argument on the Commission's intent at the time the LSN was created. However, the case is now in a posture that was not anticipated at that time.

[18] *See supra* note 2.

are maintained in a format easily accessible to all parties. We generally defer to the Board on case management issues,[19] an approach we have followed in this proceeding.[20]

We would find no reason to depart from that approach here. The Board has made a pragmatic decision, in order to provide for a smooth resumption of discovery and other activities in the proceeding, should that prove necessary. Insofar as the Board's decisions maintain the LSN document collection in a searchable, retrievable form that will continue to be of use in the proceeding, as a matter of our discretion, we would decline to disturb those decisions in this unique case.

As discussed above, we *deny* the Staff's request.[21]

IT IS SO ORDERED.[22]

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 29th day of November 2011.

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[19] *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-28, 72 NRC 553, 554 (2010) (citing *Entergy Nuclear Vermont Yankee, LLC* (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1 (2010); *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-08-7, 67 NRC 187,192 (2008)). *See generally* 10 C.F.R. § 2.319.

[20] *See, e.g.,* CLI-08-14, 67 NRC 402, 406 (2008).

[21] With its petition, the Staff also sought a stay of effectiveness of the April 11 and June 9 Board Orders, pending our consideration of its request. *See* NRC Staff Request for Stay of the April 11 and June 9, 2011 Board Orders (June 20, 2011). Given that the participants have delivered their LSN collections to the Office of the Secretary, the Staff's stay application is denied as moot.

[22] The States of Washington and South Carolina, Aiken County, South Carolina, and White Pine County, Nevada, sought the recusal or disqualification of Commissioners Apostolakis, Magwood, and Ostendorff from this matter. Commissioner Apostolakis recused himself from the adjudication for reasons unrelated to that request and, therefore, did not participate in this matter. *See* Notice of Recusal (July 15, 2010). Commissioners Magwood and Ostendorff declined to recuse themselves. *See* [Commissioner Magwood's] Decision on the Motion of the State of Washington, the State of South Carolina, Aiken County, South Carolina, and White Pine County, Nevada for Recusal/Disqualification (Aug. 11, 2010); [Commissioner Ostendorff's] Decision on the Motion of the State of Washington, the State of South Carolina, Aiken County, South Carolina, and White Pine County, Nevada for Recusal/Disqualification (Aug. 11, 2010).

Chairman Jaczko's Separate Concurring Opinion

I agree with the outcome of the majority decision, denying the Staff's request that we take review of the Board's rulings. As the decision points out, the parties have committed to maintain their document collections consistent with the direction of the Board.[23] Substantively, the Board lacks the authority to direct the Secretary's administrative activities regarding the handling of documents relating to this proceeding.[24] Indeed, the Board acknowledged as much when it observed that the Secretary need not comply with its order if funding is not available.[25] These considerations lead me to conclude that Commission review is not warranted and, for that reason, I concur with the majority decision.

[23] *See* July 28 Order at 1.

[24] *See, e.g., Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 74 (2004).

[25] *See* June 9 Order at 7.

Cite as 74 NRC 643 (2011) **LBP-11-31**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alex S. Karlin, Chairman
Dr. Anthony J. Baratta
Dr. William M. Murphy

In the Matter of **Docket Nos. 52-029-COL**
52-030-COL
(ASLBP No. 09-879-04-COL-BD01)

PROGRESS ENERGY FLORIDA, INC.
(Levy County Nuclear Power Plant, Units 1 and 2) **November 4, 2011**

SUMMARY DISPOSITION

The Board grants the Applicant's motion for summary disposition because there is no genuine issue of material fact as to the contents of the Applicant's plan for onsite management of low-level radioactive waste and the plan satisfies the legal requirements of 10 C.F.R. § 52.79(a)(3).

SUMMARY DISPOSITION

In a Subpart L adjudication, a motion for summary disposition will be granted "if there is no genuine issue as to any material fact and . . . the moving party is entitled to a favorable decision as a matter of law." 10 C.F.R. §§ 2.710(d)(2), 2.1205(c).

SUMMARY DISPOSITION: GENUINE ISSUE OF MATERIAL FACT

No genuine factual dispute exists as to the contents of the challenged portion of

a combined license application — the applicant's plan for onsite management of low-level radioactive waste in the period beyond the initial 2 years of operation. The only question is a legal one: Does the plan satisfy 10 C.F.R. § 52.79(a)(3)?

COMBINED LICENSE PROCEEDING: FINAL SAFETY ANALYSIS REPORT

Under 10 C.F.R. § 52.79(a), a combined license application must specify the means the applicant will use for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in 10 C.F.R. Part 20 (*see* 10 C.F.R. § 52.79(a)(3)) at a level of information sufficient to enable the Commission to reach a *final conclusion* on these safety matters *before* the license may be issued.

COMBINED LICENSE PROCEEDING: FINAL SAFETY ANALYSIS REPORT

It is permissible for the final safety analysis report to give the applicant several options whereby it will control and limit radioactive effluents and radiation exposures "within the limits set forth in part 20" as required by 10 C.F.R. § 52.79(a)(3), provided that each option is described with a "level of information sufficient to enable the Commission to reach a final conclusion" on these safety determinations before the license is issued. Postponing the choice between several options, each of which is concretely stated and compliant with 10 C.F.R. § 52.79(a), does not violate the regulation.

COMBINED LICENSE PROCEEDING: FINAL SAFETY ANALYSIS REPORT

The Applicant's Revised Extended LLRW Plan makes affirmative, concrete, and enforceable commitments as to how and where the Applicant will manage its low-level radioactive wastes onsite if offsite facilities are not available. These commitments can be examined to determine if they provide a "level of information sufficient to enable the Commission to reach a final conclusion" on the relevant safety matters before the issuance of any combined license, pursuant to 10 C.F.R. § 52.79(a).

COMBINED LICENSE PROCEEDING: FINAL SAFETY ANALYSIS REPORT

The Applicant's Revised Extended LLRW Plan satisfies 10 C.F.R. § 52.79(a) because its concrete and enforceable commitments provide a "level of information

sufficient to enable the Commission to reach a final conclusion" *before* the issuance of the combined license, and confirm that the Applicant has demonstrated that it has the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in 10 C.F.R. Part 20.

MEMORANDUM AND ORDER

(Granting Motion for Summary Disposition of Contention 8A)

Before the Board is a motion by Progress Energy Florida, Inc. (PEF) for summary disposition of Contention 8A (C-8A), which challenges the adequacy of PEF's plan for long-term onsite management of low-level radioactive waste (LLRW).[1] For the reasons stated below, we conclude that there is no genuine issue as to any material fact relating to C-8A, and that PEF is entitled to a favorable decision as a matter of law. The motion for summary disposition is granted.

I. BACKGROUND

On July 28, 2008, PEF filed a combined license application (COLA) pursuant to 10 C.F.R. Part 52, to construct and operate two nuclear power reactors in Levy County, Florida.[2] On July 8, 2009, we granted the petition to intervene of the Nuclear Information and Resource Service, the Ecology Party of Florida, and the Green Party of Florida (collectively, Intervenors) finding that they had standing and had proffered three admissible contentions.[3]

The evolution of the current C-8A can be summarized as follows: At the outset of this adjudication, the Intervenors filed Contention 8 (C-8), which alleged that the COLA was inadequate because it omitted any plan for the management of LLRW beyond the initial 2 years of operation of the proposed nuclear reactors. LBP-09-10, 70 NRC at 67. We admitted C-8, *id.* at 78, and PEF appealed.[4] The Commission affirmed our decision in pertinent part. CLI-10-2, 71 NRC 27, 46 (2010).

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[1] Motion for Summary Disposition of Contention 8A in Light of Revised Extended LLRW Plan (August 27, 2011) (Second MSD C-8A).

[2] Progress Energy Florida, Inc.; Application for the Levy County Nuclear Power Plant Units 1 and 2; Notice of Order, Hearing, and Opportunity to Petition for Leave to Intervene, 73 Fed. Reg. 74,532, 74,532 (Dec. 8, 2008).

[3] LBP-09-10, 70 NRC 51, 67 (2009).

[4] Applicant's Notice of Appeal from LBP-09-10 (July 20, 2009) and Progress Energy Florida, Inc.'s Brief in Support of Appeal from LBP-09-10 (July 20, 2009).

Meanwhile, on December 4, 2009, PEF submitted an extended LLRW management plan (Extended LLRW Plan) that addressed the management of LLRW for the period beyond the initial 2 years of operation.[5] The parties filed a joint motion to dismiss C-8 because the alleged omission had been cured. Joint Motion for Approval of Settlement and Dismissal of Contention 8 (Apr. 14, 2010). The Board agreed, granted the motion, and dismissed C-8.[6]

The controversy then turned to the *adequacy* of the Extended LLRW Plan. On May 14, 2010, the Intervenors moved for the admission of C-8A, challenging the adequacy of the Extended LLRW Plan.[7] C-8A reads as follows:

> Progress Energy Florida's (PEF's) COL application is inadequate to satisfy 10 C.F.R. 52.79 because it assumes that class B and C radioactive waste generated by proposed Levy Units 1 and 2 will be promptly (e.g., within two years) shipped offsite, while currently there is an absence of access to a licensed disposal facility or capability to isolate the radioactive waste from the environment. The proposed amendment to the Levy County COL also fails to offer sufficient information to demonstrate the adequacy of PEF's plans for storing Class B and C radioactive waste on the Levy site if offsite disposal capacity is not available within two years. PEF's plan to postpone most of its decisions regarding how and where to store the waste (including "minimizing" the volume of the waste) until sometime after issuance of the license for Levy violates Section 52.79 and also the Atomic Energy Act's requirement that safety findings must be made before the license is issued.

Motion to Admit C-8A at 3.

On August 9, 2010, we ruled that C-8A was admissible.[8] PEF promptly moved for summary disposition of C-8A. Motion for Summary Disposition of Contention 8A (Aug. 27, 2010) (First MSD C-8A). PEF asserted that there was no genuine factual dispute concerning the contents of the Extended LLRW Plan, that the plan satisfied the relevant regulation, 10 C.F.R. § 52.79(a), and that PEF was entitled to a favorable decision as a matter of law. *Id.* at 1.

On November 18, 2010, the Board (with Judge Baratta dissenting) denied PEF's First MSD C-8A.[9] While we unanimously agreed with PEF that there was no genuine dispute concerning the contents of the Extended LLRW Plan, LBP-10-20, 71 NRC at 589-90, the majority ruled that the Extended LLRW Plan

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[5] PEF's Responses to NRC Staff's Requests for Additional Information Nos. 11.04-1 and 11.04-2.

[6] Licensing Board Memorandum and Order (Approving Settlement and Dismissal of Contention 8) (Apr. 21, 2010) at 1 (unpublished).

[7] Motion by Joint Intervenors to Amend Contention 8 on So-Called "Low-Level" Radioactive Waste and Safety Issues Associated with On-Site Storage (May 14, 2010) (Motion to Admit C-8A).

[8] Licensing Board Memorandum and Order (Ruling on Joint Intervenors' Motion to File and Admit New Contention 8A) (Aug. 9, 2010) at 17 (unpublished) (Order Admitting C-8A).

[9] LBP-10-20, 71 NRC 571, 575 (2010).

did not satisfy 10 C.F.R. § 52.79(a). Specifically, the majority concluded that the Extended LLRW Plan was inadequate "because it [did] not provide 'a level of information sufficient to enable the Commission to reach a final conclusion . . . before the issuance of' the COL, to resolve whether PEF's 'means for controlling and limiting radioactive effluents and radiation exposures' during the extended period will be 'within the limits' set forth in 10 C.F.R. Part 20." *Id.* at 597-98. The majority stressed that 10 C.F.R. § 52.79(a) requires that the necessary safety determinations be made *before* the COL can be issued, and that PEF had not provided enough information regarding its LLRW plan to allow these determinations to be made *now. Id.* at 598-603. The majority found that the Extended LLRW Plan was "far too general and vague to make a final safety determination, now." *Id.* at 598. The majority ruled that the "plan" consisted essentially of a list of facts, a few statements of law, and some vague options that PEF *could* pursue, *id.* at 590-97, but that it failed to provide any *enforceable commitments to take concrete action* after the initial 2 years of onsite storage capacity were exhausted. *Id.* at 593-97. Thus, it did not provide sufficient information to allow the NRC to make the necessary safety determinations before the COL would be issued. Accordingly, the Board, with Judge Baratta in dissent, denied the First MSD C-8A. *Id.* at 606. We added that PEF might wish to revise and resubmit its application, taking into account our ruling. *Id.*

Once again, our decision was appealed, this time by the NRC Staff.[10] On September 27, 2011, the Commission rejected the appeal. CLI-11-10, 72 NRC 251, 252 (2011).

Meanwhile, PEF undertook to cure the deficiencies in its Extended LLRW Plan. On April 14, 2011, PEF voluntarily submitted supplemental responses to NRC Staff requests for information (RAIs) Nos. 11.04-1 and 11.04-2, providing new and expanded information about how it plans to handle LLRW in the period beyond the initial 2 years of operation of the nuclear reactors.[11] We will refer to this as PEF's "Revised Extended LLRW Plan."[12] PEF then filed the instant (second) motion for summary disposition of C-8A (Second MSD C-8A) on August 27, 2011.[13] Intervenors filed an answer on September 16, 2011.[14]

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[10] NRC Staff Petition for Review of the Licensing Board's Decision in LBP-10-20 Denying the Applicant's Motion for Summary Disposition (Dec. 10, 2010).

[11] PEF Motion, Attachment A, Supplemental Response to NRC Request for Additional Information Letter No. 073 Related to SRP Section 11.4 for the Combined License Application, dated November 4, 2009.

[12] The Revised Extended LLRW Plan is more fully identified *infra* at pages 648-49.

[13] Motion for Summary Disposition of Contention 8A in Light of Revised Extended LLRW Plan (Aug. 27, 2011).

[14] Answer to Progress Energy Florida's Motion for Summary Disposition of Contention 8A in Light of Revised Extended LLRW Plan (Sept. 16, 2011) (Intervenors' Answer).

II. APPLICABLE LEGAL STANDARD

The standard for deciding motions for summary disposition in Subpart L proceedings is found in 10 C.F.R. § 2.710, *see* 10 C.F.R. § 2.1205(c), and closely parallels the standard used by the federal courts in deciding motions for summary judgment.[15] A motion for summary disposition will be granted if "there is no genuine issue as to any material fact and . . . the moving party is entitled to a decision as a matter of law." 10 C.F.R. § 2.710(d)(2). "Thus, there are two criteria. First, the movant must show that there is no genuine issue as to any material fact. Second, the movant must establish that its legal position is correct." LBP-10-20, 71 NRC at 579.

With regard to the first criterion, "[t]he correct inquiry is whether there are material factual issues that 'properly can be resolved only by a finder of fact because they may reasonably be resolved in favor of either party.'"[16] All facts are to be construed in the light most favorable to the nonmoving party, *Anderson,* 477 U.S. at 255, and thus any doubt as to the existence of a genuine issue of material fact is to be resolved against the movant. LBP-10-20, 71 NRC at 579.

III. ANALYSIS AND RULING

For the reasons set forth below, the Board grants the motion for summary disposition because (a) there is no genuine issue or dispute as to any material fact relating to C-8A and (b) PEF's Revised Extended LLRW Plan satisfies the requirements of 10 C.F.R. § 52.79(a).

A. No Genuine Issue as to Any Material Fact

Contention C-8A alleges, in essence, that PEF's application with regard to LLRW management is inadequate because it "fails to offer sufficient information" to satisfy 10 C.F.R. § 52.79. The portion of the application that addresses this issue is PEF's Revised Extended LLRW Plan.

There is no factual dispute as to the contents of the Revised Extended LLRW Plan. It is specified, in black and white, in PEF's April 14, 2011 voluntary supplemental response to NRC's RAIs, Second MSD C-8A, Attachment A; in the "advance" copy of Chapter 11 of PEF's Final Safety Analysis Report (FSAR), Second MSD C-8A, Attachment D; and in the copy of Chapter 11 of the FSAR

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[15] *See Advanced Medical Systems, Inc.* (One Factory Row, Geneva, Ohio, 44041), CLI-93-22, 38 NRC 98, 102 (1993).

[16] *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 297 (2010) (citing *Anderson v. Liberty Lobby,* 477 U.S. 242, 250 (1986)).

that PEF actually submitted to the NRC on October 4, 2011.[17] The contents of PEF's plan are not in doubt. The only question raised here is a legal one: Does the plan satisfy the regulatory requirements?

B. Adequacy of PEF's Revised Extended LLRW Plan as a Matter of Law

As we did in LBP-10-20, we now turn to the second criterion for a successful motion for summary disposition — a showing that the movant is "entitled to a decision as a matter of law." 10 C.F.R. §§ 2.1205(c), 2.710(d)(2). In this context, the "matter of law" is whether PEF's LLRW plan satisfies 10 C.F.R. § 52.79. Specifically, C-8A asserts that PEF's LLRW plan "fails to offer sufficient information to demonstrate the adequacy of PEF's plans" and that its "plan to postpone most of its decisions . . . until sometime after issuance of the license for Levy violates Section 52.79 and the Atomic Entergy Act." Order Admitting C-8A at 5. PEF denies that its plan suffers from any such deficiencies and contends that it meets the requirements of this regulation.

We start with the words of 10 C.F.R. § 52.79. As relevant here, the regulation specifies that the FSAR must include "the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in part 20 of this chapter." 10 C.F.R. § 52.79(a)(3). This information must be "at 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." 10 C.F.R. § 52.79(a).

Next, we turn to the promises and commitments in PEF's Revised Extended LLRW Plan to see if they satisfy the foregoing regulatory criteria. Our examination reveals that PEF's Revised Extended LLRW Plan contrasts starkly with its Extended LLRW Plan and that the "Revised" plan contains sufficient information (e.g., concrete and enforceable commitments) that was lacking in the earlier plan. *See* LBP-10-20, 72 NRC at 593-97.

The Revised Extended LLRW Plan can be summarized as follows: PEF acknowledges that the "LLRW disposal facility in Barnwell, South Carolina is

[17] On October 24, 2011, this Board posed a number of questions to PEF to determine what, exactly, constitutes the Revised Extended LLRW Plan and whether the "advance copy" of the plan provided to this Board as an attachment to PEF's Second MSD C-8A had actually been filed with the NRC Staff in October 2011. Licensing Board Order (Request for Clarification from Progress Energy Florida, Inc.) (Oct. 24, 2011). PEF filed answers to these questions on November 2, 2011. Progress Energy Florida's Clarifications Regarding Motion for Summary Disposition of Contention 8A (Nov. 2, 2011). Upon reviewing these answers, the Board has determined that the Revised Extended LLRW Plan filed with NRC Staff on October 4 is substantially similar in all pertinent respects to the "advance copy" PEF filed with this Board.

no longer accepting Class B and C" LLRW. FSAR § 11.4.2.4.3. PEF states that "should there be no disposal facilities that will accept the Class B and C wastes after the [proposed Levy Nuclear Plant] begins operation, there are several options available for the storage of such wastes." *Id.* These options are (1) mixing of the spent resin tanks to temporarily limit the volume of Class B and C wet waste; (2) "vendor services" to process and store the LLRW offsite pending the availability of a licensed disposal site; and (3) "[i]f additional storage capacity were eventually needed, the plant could construct or expand storage facilities onsite, or gain access to a storage facility at another licensed nuclear plant."[18] *Id.*

With regard to the third option — expanded onsite storage — the Revised Extended LLRW Plan states:

> 11.4.6.3 Long Term On-Site Storage Facility
>
> Storage space for six months' volume of packaged waste is provided in the radwaste building. Radioactive waste generated by LNP will normally be shipped to a licensed disposal or off-site storage facility. However, should disposal facilities or off-site storage facilities not be available, storage capacity *will be* expanded as described below to provide additional on-site storage for LNP.

Id. § 11.4.6.3 (emphasis added).

We assess the foregoing provisions of the Revised Extended LLRW Plan as follows. First, PEF expresses the hope that its initial onsite storage capacity will be sufficient and that PEF will be able to ship its LLRW offsite promptly. We find nothing wrong with such an expression of hope. Thus, we reject the complaint reflected in the first sentence of C-8A (i.e., the COLA is inadequate because it "assumes" that LLRW "will be promptly . . . shipped offsite"). Motion to Admit C-8A at 3. While the Revised Extended LLRW Plan expresses the hope that offsite disposal will be available, it goes on to backstop that assumption with concrete contingency plans for onsite management of the waste if offsite options are not available.

Second, PEF acknowledges that if the initial onsite storage capacity proves to be insufficient, then it has three options.[19] As we stated in LBP-10-20, there is nothing inappropriate about having options, provided that each of the "options is

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[18] Intervenors point out that PEF occasionally uses the term "could" instead of "would" when discussing the three options. Intervenors' Answer at 7. For example, PEF states that "[i]f additional storage capacity were eventually needed, the plant *could* construct or expand waste storage facilities or gain access to a storage facility at another licensed nuclear plant." FSAR § 11.4.2.4.3 (emphasis added). In context, however, the term "could" is simply being used to reflect that PEF has identified several options. As discussed below, so long as each option is stated with sufficient information, the LLRW plan can still satisfy 10 C.F.R. § 52.79(a)(3).

[19] The first two options are waste volume reduction and offsite storage.

described with a level of information sufficient for NRC to make the necessary safety determinations now." LBP-10-20, 72 NRC at 605. Thus, we reject the complaint reflected in the third sentence of C-8A (i.e., that "PEF's plan to postpone most of its decisions" violates 10 C.F.R. § 52.79). Motion to Admit C-8A at 3. As we stated before, "postponing the decision between [concretely stated options] would not violate 10 C.F.R. § 52.79(a)." LBP-10-20, 72 NRC at 605.

Third, and most importantly, PEF's current plan makes affirmative, enforceable commitments as to what it will do if offsite disposal and/or storage facilities are not available. PEF states that onsite "storage *will be* expanded as described below." FSAR § 11.4.6.3 (emphasis added). PEF's description of what it will do to expand the onsite LLRW storage is, again, stated affirmatively and concretely, as follows:

> Additional on-site [LLRW] storage capabilities are available if Class B and C waste cannot be disposed at a licensed disposal facility. An outside storage pad *will* be utilized to provide this capability. The LNP LLRW storage facility *would* be located outside the Protected Area (PA) in the Owner Controlled Area (OCA). The storage facility *would* be enclosed by an eight-foot high fence with locked gates and *would* be provided with area lighting. The storage of LLRW *would* be in high integrity containers (HICs) or other suitable containers that will not decay over time, which *would* be stored within shielded containers. The design of the storage facility *will* comply with the guidance of documents as identified in this section which is consistent with NUREG-0800, Appendix 11.4A. The design storage capacity is based on the expected generation in Table 11.4-1, industry experience indicates approximately 100% of the Class B and C waste is expected to be in the form of wet waste, and volume minimization/reduction programs. The site waste management plan *will* include radioactive wet waste reduction initiatives for Class B and C waste.
>
> The storage facility *will* be sited such that it could be sized to accommodate storage of Class B and C waste over the operating life of the plant and designed to accommodate future expansion as needed. Capacity *would* be added in phases based on the expected availability of off-site treatment and storage, and disposal facilities.

Id. (emphasis added).

The foregoing language in the Revised Extended LLRW Plan contrasts sharply with the language in the Extended LLRW Plan. That plan lacked specific content or meaningful commitments. It included statements such as "[i]f additional storage capacity for [LLRW] is required, further temporary storage would be developed in accordance with NUREG-0800" and "the existing regulatory framework would allow Progress Energy to conduct written safety analyses under 10 C.F.R. § 50.59." LBP-10-20, 72 NRC at 594. We held that such statements, however laudable, were too general and vague and did not provide sufficient information to enable the Commission to reach a final conclusion, before issuance

of the proposed license, as to whether PEF's means for controlling and limiting radiation exposures would, in fact, meet the limits set forth in 10 C.F.R. Part 20. *Id.* at 598.

In contrast, the language in the Revised Extended LLRW Plan, quoted above, includes enforceable promises to take concrete actions. The quoted language provides sufficient information to allow the NRC to evaluate whether PEF's onsite management of LLRW will, in fact, comply with Part 20. In addition, this language is enforceable (e.g., if PEF failed to take one of these concrete actions, NRC enforcement attorneys could go to court and reasonably expect to obtain a judicial order directing PEF to implement these commitments).

We note that the Revised Extended LLRW Plan goes on to describe, in similar affirmative language, how the onsite storage "would" be designed (e.g., "the outside storage pad would be an engineered feature designed to minimize settling and would be constructed of reinforced concrete or engineered gravel") FSAR § 11.4.6.3.1, and how it "would" be operated (e.g., "The use of hold-down devices to secure the waste container during severe environmental events, such as strong winds, would be provided for"). *Id.* § 11.4.6.3.2.

In short, we reject the complaint reflected in the middle sentence of C-8A that PEF's Revised Extended LLRW Plan "fails to offer sufficient information to demonstrate the adequacy of PEF's plans for storing" LLRW, Motion to Admit C-8A at 3, and conclude that it satisfies the requirements of 10 C.F.R. § 52.79(a)(3).[20]

IV. CONCLUSION AND ORDER

In conclusion, the Board grants PEF's motion for summary disposition of C-8A. We agree that the motion satisfies the first criterion for summary disposition — that the resolution of the contention raises no genuine issue as to any material fact. We also agree, as a matter of law, that PEF's Revised Extended LLRW Plan satisfies 10 C.F.R. § 52.79(a) because it provides concrete and enforceable commitments that provide a "level of information sufficient to enable

[20] We note also that the Intervenors attempt to raise two new issues in their answer. First, they seek to raise issues associated with 10 C.F.R. Part 100 "Reactor Site Criteria" stating that "with the passage of a solar year our expert, preparing for hearing has expanded the basis of concern and is now looking at Part 100 with respect to this contention." Intervenors' Answer at 10. He may be looking at Part 100, but we are not. Part 100 was never asserted as legal or factual support for C-8A, and we will not allow it to be introduced in such an inappropriate and cavalier manner now. Second, Intervenors raise a concern that the proposed site for the storage unit is at risk of a storm surge from a category 5 hurricane. *Id.* at 8. Again, given that C-8A makes no reference to the threat of storm surge, an answer to a motion for summary disposition is neither the proper time nor the proper place to raise this concern.

the Commission to reach a final conclusion," *before* the issuance of the COL, to resolve whether PEF's means for controlling and limiting radioactive effluents and radiation exposures during the extended period will be "within the limits" set forth in 10 C.F.R. Part 20.

Petitions for review of this order may be filed with the Commission pursuant to 10 C.F.R. § 2.341. Such petitions must be filed within fifteen (15) days of the service of this Order.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

Dr. Anthony J. Baratta
ADMINISTRATIVE JUDGE

Dr. William M. Murphy
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 4, 2011

Cite as 74 NRC 654 (2011) **LBP-11-32**

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. 10-900-01-LR-BD01)

PACIFIC GAS AND ELECTRIC COMPANY
(Diablo Canyon Nuclear Power Plant, Units 1 and 2)

November 18, 2011

The Board denies a motion filed by the San Luis Obispo Mothers for Peace seeking to admit a new environmental contention based on the "findings and recommendations raised by the Nuclear Regulatory Commission's Fukushima Task Force Report" issued on July 12, 2011.

NEPA: NONAPPLICABILITY TO PRIVATE PARTIES

The National Environmental Policy Act applies to agencies of the Federal Government, such as the NRC, but does not apply to private parties such as applicants for NRC licenses.

NEPA: 10 C.F.R. PART 51

Environmental Reports (ERs) are creatures of 10 C.F.R. Part 51, not NEPA.

Part 51 is the source of the legal requirement that an applicant submits an ER, and it prescribes the required contents thereof.

NEPA AND PART 51: NO DUTY TO SUPPLEMENT ENVIRONMENTAL REPORT

Although NEPA and Part 51 require that the NRC Staff supplement its draft or final Environmental Impact Statement (EIS) if new and significant information arises after the publication of the EIS, *see* 10 C.F.R. §§ 51.72(a)(2), 51.92(a)(2), an applicant has no such legal duty to supplement or update its Environmental Report (ER) to incorporate new and significant information that arises after submission of an originally compliant ER. This is because NEPA does not apply to private parties such as the applicant, and Part 51 does not mandate that the ER be supplemented in such circumstances.

NEPA AND PART 51: NO DUTY TO SUPPLEMENT ENVIRONMENTAL REPORT

Although 10 C.F.R. §§ 51.72(a)(2) and 51.92(a)(2) specifically mandate that the draft Environmental Impact Statement (EIS) and final EIS, respectively, be supplemented if new and significant information arises after they are issued, 10 C.F.R. § 51.53(c)(3)((iv), in contrast, does not mandate that the Environmental Report (ER) be supplemented if new and significant information arises after the ER is submitted.

REGULATIONS: INTERPRETATION (10 C.F.R. § 51.53(c)(3)(iv))

The requirement in 10 C.F.R. § 51.53(c)(3)(iv) that the Environmental Report (ER) "contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware" refers to new and significant information that has arisen in the time period subsequent to the issuance of the initial operating license. This regulation does not require an applicant to supplement a license renewal ER if new and significant information arises after that ER was submitted.

REGULATIONS: INTERPRETATION (10 C.F.R. §§ 50.9(a) AND 54.13(a))

The requirements in 10 C.F.R. §§ 50.9(a) and 54.13(a) that the "[i]nformation provided to the Commission by an applicant . . . shall be complete and accurate in all material respects" does not require an applicant to supplement an originally

compliant Environmental Report if new and significant information arises after it was submitted.

REGULATIONS: INTERPRETATION (10 C.F.R. §§ 50.9(b) AND 54.13(b))

The requirements in 10 C.F.R. §§ 50.9(b) and 54.13(b) that "[e]ach applicant shall notify the Commission of information identified by the applicant as having, for the regulated activity, a significant implication for public health and safety or common defense and security" does not require an applicant to supplement an originally compliant Environmental Report if new and significant information arises after it was submitted.

REGULATIONS: INTERPRETATION (10 C.F.R. § 54.21(b))

The requirement in 10 C.F.R. § 54.21(b) that specifies that "an amendment to the renewal application must be submitted [annually] that identifies any changes to the [Current Licensing Basis] of the facility that materially affects the contents of the license renewal application, including the [Final Safety Analysis Report] supplement" does not require an applicant to supplement an originally compliant Environmental Report if new and significant information arises after it was submitted.

NEPA AND PART 51: RIGHT TO SUPPLEMENT ENVIRONMENTAL REPORT

Although the NRC regulations do not require a license renewal applicant to supplement its Environmental Report (ER) based on new and significant information arising after the ER was filed, so too, the regulations do not bar the applicant from voluntarily doing so. Nor do the regulations bar the Staff from filing a request for additional information asking the applicant to supplement the ER.

REGULATIONS: INTERPRETATION (10 C.F.R. §§ 2.309(f)(2) AND 51.53(c)(3)(iv))

The conclusion that 10 C.F.R. § 51.53(c)(3)(iv) does not require that an Environmental Report (ER) be supplemented to include "new and significant information" associated with events that occur after the ER was filed, does not mean that a "new" contention, challenging the adequacy of the ER, can never be filed under 10 C.F.R. § 2.309(f)(2). The latter regulation authorizes the filing

of a new environmental contention, if it is based on information that was "not previously available" and that is "materially different" and that shows that the ER, as originally filed, was inadequate.

MEMORANDUM, ORDER, AND REFERRAL

(Denying Motion to Admit New Contention and Referring Ruling to Commission)

Before the Board is a motion filed by the San Luis Obispo Mothers for Peace (SLOMFP) seeking to admit a new environmental contention based on the "findings and recommendations raised by the Nuclear Regulatory Commission's Fukushima Task Force Report" issued on July 12, 2011.[1] We refer to this new contention as the "Fukushima Contention" or "EC-5."[2] The Pacific Gas and Electric Company (PG&E) and the NRC Staff oppose the admission of EC-5.[3] For the reasons stated below, we rule that the contention is not admissible. Pursuant to 10 C.F.R. § 2.323(f) we also refer part of our ruling to the Commission, i.e., our conclusion that an applicant has no legal duty, either under the National Environmental Policy Act (NEPA) or any NRC regulation, to supplement an originally compliant environmental report (ER) to incorporate new and significant information that arises after the ER was duly submitted.

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[1] Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) at 1 (corrected certificate of service added on Aug. 24, 2011) (Motion); Motion Attachment, Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) at 4 (Statement of Contention). SLOMFP's Motion was supported by a declaration from Dr. Arjun Makhijani. Motion Attachment, Declaration of Dr. Arjun Makhijani Regarding Safety and Environmental Significance of NRC Task Force Report Regarding Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Aug. 8, 2011). With the new contention, SLOMFP filed in the adjudicatory docket a copy of a rulemaking petition it filed with the Commission. Motion Attachment, Rulemaking Petition to Rescind Prohibition Against Consideration of Environmental Impacts of Severe Reactor and Spent Fuel Pool Accidents and Request to Suspend Licensing Decision (Aug. 11, 2011).

[2] "EC" means environmental contention. EC-5 is the fifth environmental contention proffered by SLOMFP.

[3] Applicant's Response to Proposed Contention (Sept. 6, 2011) (PG&E Answer); NRC Staff's Answer to Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Sept. 6, 2011) (Staff Answer).

I. BACKGROUND

A. Fukushima Dai-ichi Accident and NRC Initial Response

On March 11, 2011, a 9.0 magnitude earthquake and a tsunami produced widespread devastation across a large area of northeastern Japan. This event caused the Fukushima Dai-ichi nuclear facility to suffer substantial damage to a number of its nuclear reactors, spent fuel pools, and other associated systems (hereinafter "Fukushima Accident"). As a result of the Fukushima Accident, radiation was released into the surrounding environment.[4]

On March 23, 2011, the NRC established a special Task Force to study the Fukushima Accident.[5] The Commission directed the Task Force to conduct an independent evaluation of information from the Fukushima Accident and to identify near term and immediate operational or regulatory deficiencies that might affect domestic reactor operation, including protection against earthquakes, tsunamis, and other natural events, station blackout, severe accident mitigation, emergency preparedness, and combustible gas control. Tasking Memorandum at 1.

On July 12, 2011, the Task Force issued its report which included twelve recommendations for improving the safety of both new and operating nuclear reactors. Task Force Report at 69-70. Although the Task Force concluded that the continued operation and licensing of nuclear power plants in the U.S. does not pose an "imminent risk" to public health and safety, it nevertheless also "conclude[d] that a more balanced application of the Commission's defense-in-depth philosophy using risk insights would provide an enhanced regulatory framework that is logical, systematic, coherent and better understood" and that "[s]uch a framework would . . . significantly enhanc[e] safety."[6] *Id.* at vii-viii. Further, it stated that the "Task Force has concluded that a collection of such 'extended design-basis' requirements . . . should be established." *Id.* at viii.

Meanwhile, on April 14, 2011, 3 months before the Task Force Report was issued, SLOMFP and over forty other environmental organizations and individuals filed petitions with the Commission, asking it to temporarily suspend the issuance of new or renewed licenses to nuclear power plants in the United States until

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[4] Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident (July 12, 2011) at 7-14 (Task Force Report).

[5] Tasking Memorandum — COMGBJ-11-0002 — NRC Actions Following the Events in Japan (Mar. 23, 2011) (Tasking Memorandum); *see also* Charter for the Nuclear Regulatory Commission Task Force to Conduct a Near-Term Evaluation of the Need for Agency Actions Following the Events in Japan (Apr. 1, 2011).

[6] Indeed, this was the central thrust of the Task Force's very first recommendation: "The Task Force recommends establishing a logical, systematic, and coherent regulatory framework for adequate protection that appropriately balances defense-in-depth and risk considerations." *Id.* at ix.

information from the Fukushima Accident became clearer, and until the lessons of Fukushima could be learned and understood.[7] In the interim, SLOMFP (and the other petitioners) asked the Commission to suspend all adjudicatory and licensing proceedings, Emergency Petition at 28-29, and to revise its generic environmental impact statement (GEIS) related to the licensing of nuclear reactors in light of the allegedly "new and significant information" from the Fukushima Accident. *Id.* at 29. In light of the evolving information, SLOMFP and the other petitioners also asked the Commission to "establish procedures and a timetable for raising new issues relevant to the Fukushima accident in pending licensing proceedings." *Id.* at 30.

On September 9, 2011, the Commission denied all of the foregoing requests in SLOMFP's Emergency Petition. The Commission stated that there is "no imminent risk to public health and safety if . . . [the] regulatory process . . . continue[s]."[8] The Commission concluded "[m]oving forward with [Commission] decisions and proceedings will have no effect on the NRC's ability to implement necessary rule or policy changes that might come out of [Commission] review of the Fukushima Daiichi events." *Callaway,* CLI-11-5, 74 NRC at 166. In addition, the Commission stated that any changes adopted as a result of the Fukushima Accident or the Task Force Report can and will be implemented through the "normal regulatory process." *Id.* at 147-48 n.6.

The Commission rejected the petitioners' "request that the NRC conduct a separate generic NEPA analysis regarding whether the Fukushima events constitute 'new and significant information' under NEPA that must be analyzed as a part of the environmental review for new reactor and license renewal decisions." *Id.* at 166-67. The Commission ruled

> [t]he request is premature. Although the Task Force completed its review and provided its recommendations to us, the agency continues to evaluate the accident and its implications for U.S. facilities and the full picture of what happened at Fukushima is still far from clear. In short, we do not know today the full implications of the Japan events for U.S. facilities. Therefore, any generic NEPA duty — if one were appropriate at all — does not accrue now.

Id. at 167.

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[7] *See, e.g.,* Emergency Petition to Suspend All Pending Reactor Licensing Decisions and Related Rulemaking Decisions Pending Investigation of Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Apr. 14, 2011) at 28 (Emergency Petition); *see also* Amendment and Errata to Emergency Petition to Suspend All Pending Reactor Licensing Decisions and Related Rulemaking Decisions Pending Investigation of Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Apr. 18, 2011).

[8] *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 166 (2011).

The Commission added, however, that *individual* "[r]eactor adjudications should go forward, including those that may involve proposed contentions based on issues implicated by the Fukushima events." *Id.* at 170. But the Commission declined to provide guidance to the petitioners as to when contentions based on the Fukushima Accident or Task Force Report might "accrue." The Commission stated that it agreed with the respondents that NRC regulations and case law already provide "clear and uniform standards" to determine the timeliness of motions to add new contentions. *Id.* at 169.

B. Procedural Background to EC-5

The motion to admit EC-5 was filed on August 11, 2011, before the Commission had issued CLI-11-5 rejecting the April 2011 Emergency Petition. Motion at 1. Likewise, the answers of PG&E and the Staff, opposing the admission of EC-5, were filed before CLI-11-5 was issued. PG&E Answer at 1; Staff Answer at 1. SLOMFP's reply, filed on September 13, 2011, did address the implications of CLI-11-5.[9] And, at the Board's request, PG&E and Staff each filed a surreply on September 27, 2011, addressing CLI-11-5.[10] The Board held oral argument on EC-5 on October 13, 2011, in Rockville, MD.

During the oral argument, the Board requested that the parties submit, within 5 days of the argument, short written answers to the following question: What regulation, if any, requires a license renewal applicant to supplement or update its environmental report? Tr. at 610. On October 18, 2011, the parties filed one-page answers to that question.[11]

Thereafter, on October 18, 2011, the Commission issued SRM/SECY-11-0124, directing the Staff to implement some of the Task Force recommendations and to strive to do so within 5 years — by 2016.[12] Within 10 days, SLOMFP filed

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[9] [SLOMFP's] Reply to Oppositions to Admission of New Contention (Sept. 13, 2011) at 1 (SLOMFP Reply); SLOMFP Reply Attachment, Reply Memorandum Regarding Timeliness and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings (Sept. 13, 2011) at 3-4 (Reply Memorandum).

[10] Applicant's Sur-Reply Regarding Admission of Proposed New Contention (Sept. 27, 2011) (PG&E Surreply); NRC Staff's Surreply to the Reply of [SLOMFP] (Sept. 27, 2011) (Staff Surreply).

[11] [SLOMFP's] Response to Board Question (Oct. 18, 2011) at 1 (SLOMFP Supplemental Brief); [PG&E's] Response to Licensing Board Question at Oral Argument (Oct. 18, 2011) at 1 (PG&E Supplemental Brief); NRC Staff's Response to Question at Oral Argument (Oct 18, 2011) at 1 (Staff Supplemental Brief).

[12] Staff Requirements — SECY-11-0124 — Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report (Oct. 18, 2011) at 1 (unanimous approval) (SRM/SECY-11-0124).

a motion to supplement EC-5 based on the issuance of SRM/SECY-11-0124.[13] PG&E and Staff filed answers thereto.[14]

II. LEGAL STANDARDS

Three regulations address the admissibility of new contentions once an adjudicatory proceeding has been initiated. These are 10 C.F.R. § 2.309(f)(2), which deals with the admission of new and timely contentions; 10 C.F.R. § 2.309(c), which deals with the admission of new but nontimely contentions; and 10 C.F.R. § 2.309(f)(1), which establishes the basic criteria that all contentions must satisfy.

The first regulation states that a *timely* new or amended contention may be admitted if it meets the following requirements:

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

10 C.F.R. § 2.309(f)(2)(i)-(iii) (emphasis added).[15]

The regulation does not specify the number of days within which a new or amended contention must be filed in order to be "timely." Timeliness is subject to a reasonableness standard, depending on the facts and circumstances of each situation. Many boards, including this one, have specified that a new contention will be presumed timely if it is filed within 30 days of the trigger event, i.e., the moment when the new information (upon which the contention is founded) becomes "available" to the petitioners. Initial Scheduling Order (Sept. 15, 2010)

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[13] [SLOMFP's] Motion for Leave to Supplement Basis of Contention Regarding NEPA Requirements to Address Safety and Environmental Implications of the Fukushima Task Force Report (Oct. 28, 2011) (Motion to Supplement Basis).

[14] Applicant's Reply to Motion for Leave to Supplement Basis (Nov. 7, 2011) (PG&E Answer to Supplemental Basis); NRC Staff's Answer to Motion for Leave to Supplement Basis of Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Nov. 7, 2011) (Staff Answer to Supplemental Basis).

[15] NRC regulations also include a special rule for new contentions under NEPA. The regulations state that, at the outset of the proceeding, NEPA contentions are to be based on the applicant's ER. 10 C.F.R. § 2.309(f)(2). Subsequently, new or amended NEPA contentions may be filed "if there are data or conclusions in the NRC draft or final environmental impact statement (EIS), environmental assessment, or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's document." *Id.* Inasmuch as the DEIS has not been issued, there can (as yet) be no difference between the ER and the DEIS, and thus this regulatory provision is not implicated here.

at 12-13 (unpublished) (ISO). However, the moment when the 30-day clock begins to run, i.e., when the new information becomes "available," is frequently the subject of much dispute and litigation and the standard is far from "clear and uniform."

If a proposed new contention is *not timely* under 10 C.F.R. § 2.309(f)(2)(iii), then the proponent of the contention must address the eight criteria of 10 C.F.R. § 2.309(c)(1) for "nontimely filings." The first of the eight criteria, "good cause" for failure to file on time, is the most important factor in the 10 C.F.R. § 2.309(c) analysis.[16] If good cause is not shown, the Board may still permit the late filing, but the petitioner or intervenor must make a strong showing on the other factors.[17]

In addition to the foregoing, all contentions must satisfy the six criteria specified in 10 C.F.R. § 2.309(f)(1)(i)-(vi). We reviewed the six-factor test earlier in this proceeding. LBP-10-15, 72 NRC 257, 277-78 (2010).

III. POSITIONS OF THE PARTIES

Proposed Contention EC-5 states:

> The ER for Diablo Canyon license renewal fails to satisfy the requirements of NEPA because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report. As required by NEPA and the NRC regulations, these implications must be addressed in the ER.

Statement of Contention at 4-5.

According to SLOMFP, the "findings and recommendations" of the Task Force Report raise "new and significant environmental implications" that must be addressed in PG&E's ER.[18] In support, SLOMFP cites NEPA case law and NRC regulations for the proposition that a supplement to the DEIS or FEIS is required if "there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." *See* 10 C.F.R. §§ 51.72(a)(2), 51.92(a)(2); Statement of Contention at 9-11.

SLOMFP's logic seems to be as follows. First, SLOMFP points out that the Task Force has recommended that the Commission take actions to impose

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[16] *See Crow Butte Resources, Inc.* (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 549 n.61 (2009); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 261 (2009).

[17] *See Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-1, 67 NRC 1, 5-8 (2008).

[18] Indeed, SLOMFP takes the view that those recommendations, in and of themselves, constitute the requisite new information. Motion at 1; Statement of Contention at 4-5, 10-11; Tr. at 545-46, 552-55.

additional, more stringent requirements on nuclear reactors, for instance, by establishing mandatory safety regulations for certain severe accidents without regard to cost. Statement of Contention at 2, 13; Tr. at 530, 532. Second, if these recommendations are implemented, SLOMFP asserts that they would significantly increase the cost of safely operating nuclear reactors. Statement of Contention at 13. Third, SLOMFP says that these increased costs would change the NEPA cost-benefit analysis, and severe accident mitigation alternatives (SAMA) analysis for nuclear reactors, including for the Diablo Canyon Nuclear Power Plant (DCNPP).[19] Fourth, SLOMFP contends that the Task Force recommendations, in and of themselves, constitute "new and significant information" whose environmental implications must be considered under NEPA before the NRC may grant renewed operating licenses for DCNPP.[20] Finally, in a point only made explicit in its supplemental brief, SLOMFP asserts that this NEPA duty extends to PG&E, which must supplement its ER to account for the Task Force recommendations.[21]

In response, PG&E argues that EC-5 is inadmissible, assuring us that "[a]ny new requirements or enhancements for operating nuclear power plants resulting from lessons learned through the Fukushima accident should (and will) be imposed in the context of the NRC's ongoing review, independent from this license renewal review." PG&E Answer at 1. According to PG&E, EC-5 raises generic issues and, because the Commission may ultimately deal with these generic issues through notice-and-comment rulemaking, NRC precedent precludes admitting EC-5.[22]

PG&E also contends EC-5 is inadmissible because it does no more than challenge the basic regulatory structure of the NRC's design basis and generic environmental impacts already assessed through rulemaking.[23] Viewed as a contention challenging the ER's SAMA analysis, PG&E argues further that EC-5 does not establish a genuine dispute with the ER, as required by 10 C.F.R. § 2.309(f)(1)(vi). PG&E Answer at 11-15. PG&E states that not only does EC-5 not address any specific aspect of the ER's SAMA analysis, but EC-5 fails to even discuss any discernible implications of the Fukushima Accident with respect

[19] Statement of Contention at 3, 13-14 (citing 42 U.S.C. § 4332(C)(iii), which requires a "detailed statement . . . on . . . alternatives to the proposed action"); Tr. at 541, 543, 546.

[20] Statement of Contention at 9-11 (citing *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 371 n.14 (1989)).

[21] SLOMFP Supplemental Brief at 1 (contending that 10 C.F.R. § 51.53(c)(3)(iv) requires PG&E to supplement its ER); *see* Statement of Contention at 11 (citing 10 C.F.R. § 51.53(c)(3)(iv)).

[22] PG&E Answer at 7 (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)).

[23] *Id.* at 9-10 (citing *Philadelphia Electric Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974) and 10 C.F.R. § 51.53(c)(3)(i), respectively); Tr. at 532-33.

to accident probabilities or environmental consequences at the DCNPP site.[24] *Id.* at 13; Tr. at 532-33.

The Staff also argues that EC-5 is not admissible. Staff Answer at 1. The four principal arguments advanced by Staff are that the issues raised by EC-5 (1) are outside the scope of this license renewal proceeding, (2) fail to challenge any specific provisions or statements in the ER, (3) are not material to this proceeding, and (4) lack an adequate basis. Staff Answer at 1; Tr. 534-35. The Staff also argues that EC-5 is untimely under 10 C.F.R. § 2.309(f)(2) because the Fukushima Accident was previously discussed by SLOMFP's own expert Dr. Makhijani as early as April 19, 2011, more than 30 days before the filing of EC-5. Staff Answer at 32-36; Tr. at 594.

In reply, SLOMFP asserts that the Commission decision in CLI-11-5 bolsters the admissibility of EC-5. Reply Memorandum at 3-4. According to SLOMFP, the Commission held that even though the Task Force Report did not justify initiating a generic NEPA review, the Commission acknowledged that new and significant information "may come to light," that "must be considered in individual reactor licensing proceedings."[25] In this individual licensing proceeding, SLOMFP argues that the Task Force Report *recommendations* themselves constitute such new and significant information. *Id.* at 4; Tr. at 537, 606. PG&E and Staff disagree, both arguing that in CLI-11-5 the Commission conclusively determined that "[b]ased on the Task Force Report and the current state of information, there is no new and significant *environmental* information giving rise to a NEPA duty." PG&E Surreply at 3 (emphasis in original); *see also* Staff Surreply at 4. According to PG&E and Staff, the Commission's statement applies equally to this licensing proceeding. Tr. at 570-72.

During the oral argument, the Board asked the Parties whether there is any legal requirement for the applicant to supplement or update the ER to incorporate "new and significant information."[26] None of the parties could provide a satisfactory answer to this question. *See* Tr. at 542 (SLOMFP), 567 (SLOMFP), 591 (PG&E), 597-600 (Staff), 606 (SLOMFP). At the close of the oral argument, the Board instructed the parties to address that question, as follows: "What regulation, if any, requires the environmental report to be supplemented or updated annually?" Tr. at 610. In response, SLOMFP identified 10 C.F.R. § 51.53(c)(3)(iv) as the regulation that requires license renewal applicants to supplement their environmental reports. SLOMFP Supplemental Brief at 1. PG&E and the NRC Staff did not assert that

[24] PG&E does not oppose the timeliness of EC-5 under 10 C.F.R. § 2.309(f)(2) or 10 C.F.R. § 2.309(c)(1). PG&E Answer at 5.

[25] Reply Memorandum at 3-4 (citing *Callaway,* CLI-11-5, 74 NRC at 166-67) (internal quotations omitted).

[26] Tr. at 542 (Judge Abramson: "[C]an you point us to legal authority where the applicant is required to do that, to modify its ER? Isn't NEPA a duty of the agency, not of the applicant?").

Part 51 requires the ER to be supplemented, and instead stated only that 10 C.F.R. § 54.21(b) requires an applicant to update its license renewal application annually to reflect changes in its current licensing basis (CLB), but such updating does not "explicitly extend to the [ER]." PG&E Supplemental Brief at 1; *see also* Staff Supplemental Brief at 1.

After oral argument SLOMFP moved to supplement the basis for EC-5. Motion to Supplement Basis at 1. According to SLOMFP, a key event occurred on October 18, 2011, when the Commission issued SRM/SECY-11-0124, directing the Staff to implement some of the Task Force recommendations. SLOMFP maintains that the Commission's action "provides further support . . . for SLOMFP's contention that the information set forth in the Task Force Report must be considered before the Diablo Canyon nuclear power plant operating license can be renewed." *Id.* In response, PG&E did not oppose SLOMFP's motion to supplement, but continued to oppose admission of the contention, echoing arguments made in its pleadings and at oral argument. PG&E Answer to Supplemental Basis at 1-2. Staff opposed SLOMFP's motion as both procedurally defective and failing to demonstrate that EC-5 is admissible. Staff Answer to Supplemental Basis at 4-5.

IV. ANALYSIS AND RULING

Our analysis starts with the plain words of the contention and the black letter of the law. Applying these criteria, we conclude that EC-5 fails on its face because an applicant has no legal duty to supplement or update the ER to incorporate new and significant information that arises from events that occur after the ER was duly filed.

The contention focuses, as is required by our regulations, on the ER.[27]

> The ER for Diablo Canyon license renewal fails to satisfy the requirements of NEPA because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report. As required by NEPA and the NRC regulations, these implications must be addressed in the ER.

SLOMFP, however, errs when it asserts that NEPA requires that these implications be addressed in the ER. SLOMFP asserts that NEPA requires NRC to supplement its EIS to incorporate any new and significant information that arises after the EIS is issued, but before the NRC takes final agency action. Although

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[27] That this is appropriate is evident in the black letter of section 2.309(f)(2) requiring that "on issues arising under NEPA, the petitioner shall file contentions based upon the applicant's environmental report." But one principal shortcoming of this contention is its assertion of a duty to update the ER.

this statement is accurate, this licensing proceeding has not yet reached the EIS stage and EC-5 challenges only the ER. Environmental Reports are creatures of 10 C.F.R. Part 51. In contrast, NEPA applies to "agencies of the Federal Government," *see* 42 U.S.C. § 4322(2), not to private parties such as applicants for NRC licenses.[28]

The Commission recently affirmed that Part 51, not NEPA, is the source of the legal requirements applicable to the applicant's environmental report.[29] On this basis, we dispense with the portion of EC-5 that asserts that "NEPA [requires] that these implications be addressed in the ER." *NEPA* does not apply to PG&E or the ER.

Thus we turn to the *NRC regulations* for a source of some legal duty that the ER must address the alleged "new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report." Before proceeding, we note that PG&E filed the ER on November 23, 2009, *see* 75 Fed. Reg. 3493, 3493 (Jan. 21, 2010), whereas, the Fukushima Accident began on March 11, 2011, and the Task Force Report was issued on July 12, 2011.

SLOMFP asserts that 10 C.F.R. § 51.53(c)(3)(iv) imposes such a duty. SLOMFP Supplemental Brief at 1. Section 51.53 deals with three types of "postconstruction" ERs. Subsection (b) deals with "operating license stage" ERs; subsection (c) deals with "operating license renewal stage" ERs; and subsection (d) deals with "postoperating license stage" ERs. *See* 10 C.F.R. § 51.53(b), (c), and (d) respectively. For an "operating license renewal stage," as here, the regulation specifies that the ER "must contain any new and significant information regarding the environmental impacts of license renewal of which the applicant is aware." 10 C.F.R. § 51.53(c)(3)(iv). But this provision does not impose a continuing duty upon the applicant to supplement or update its originally compliant ER if new and significant information arises after the ER is submitted.

Where the NRC intends to mandate that an originally compliant environmental document be supplemented, it does so explicitly. For example, section 51.72 is titled "Supplement to draft environmental impact statement" and states that "[t]he

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[28] *See, e.g., Save the Bay, Inc. v. U.S. Corps of Engineers,* 610 F.2d 322, 326 (5th Cir. 1980); *Sierra Club v. Environmental Protection Agency,* 995 F.2d 1478, 1485 (9th Cir. 1993); *Defenders of Wildlife v. Andrus,* 627 F.2d 1238, 1243-44 (D.C. Cir. 1980); *see also* Daniel R. Mandelker, NEPA Law and Litigation §§ 1.1, 8.18 (2d ed. 2008).

[29] *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 34 (2010), *affirming* LBP-09-10, 70 NRC 51, 87 (2009) ("The Board, therefore, was correct when it observed that it is not NEPA, but our regulations in 10 C.F.R. Part 51, that require that an applicant submit an ER."); *see also Washington Public Power Supply System* (WPPSS Nuclear Project No. 3), LBP-96-21, 44 NRC 134, 136 (1996); *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), LBP-83-8A, 17 NRC 282, 285 (1983) ("The Commission cannot delegate its NEPA responsibilities to a private party.").

NRC staff will prepare a supplement to a draft [EIS] . . . if . . . (2) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 10 C.F.R. § 51.72(a)(2). The provisions of section 51.92, titled "Supplement to the final environmental impact statement," are virtually identical. 10 C.F.R. § 51.92(a)(2). In contrast, neither 10 C.F.R. § 51.53(c)(3)(iv), nor any other NRC regulation, states that the ER must be "supplemented" or "updated."

Certainly 10 C.F.R. § 51.53(c)(3)(iv) requires that license renewal ERs contain "new and significant information." But in context, this simply means that, when a license is being *renewed,* the renewal applicant cannot rest on the ER (and EIS) associated with the *original* license, and instead must submit an ER that includes new environmental information of which the licensee is aware and that has arisen subsequent to the issuance of the original license.

This reading is confirmed by a review of the NRC's other provisions relating to ERs. For example, Part 51 nowhere requires that ERs include new information when the application is for a *new* license or permit. *See* 10 C.F.R. §§ 51.50(b) (early site permit (ESP) stage); 51.50(c) (combined license (COL) stage without prior ESP); 51.53(b) (operating license stage); 51.54 (manufacturing license stage); 51.55 (standard design certification stage).

In contrast, Part 51 *only* specifies that an ER must include new information when a *prior* license has been issued for the facility, and the ER in question is associated with a *subsequent* license for the same facility. *See* 10 C.F.R. §§ 51.50(c)(1)(iii) (COL referencing a prior ESP); 51.53(c)(3)(iv) (license renewal); 51.53(d) (postoperating license).

If, as SLOMFP contends, section 51.53(c)(3)(iv) is intended to require an applicant to supplement its originally compliant ER whenever "new and significant information" subsequently arises, then why is this "duty to supplement" limited to only *some* ERs? Logically, if there is a continuing duty to supplement an ER then it would be universal. It would apply equally to ERs associated with original license applications, and not be limited to subsequent applications relating to a facility that has already received a license.

We conclude that, in context, the phrase "new" as used in 10 C.F.R. § 51.53(c)(3)(iv) merely requires that the ER include environmental information that is "new" as compared to the original ER for the same facility and new as of the time of submission of the required ER. It does not impose a continuing duty to supplement an ER which was compliant when submitted.

In addition to being most consistent with the language and context of the regulations, our reading makes the most sense. This is because the ER is merely the first step in the environmental review and will be followed by a draft EIS (DEIS) and then a final EIS (FEIS). Clearly the DEIS must capture and address any "new and significant information" that arises in the interval after the applicant files its originally compliant ER. *See* 10 C.F.R. § 51.72(a)(2). Likewise,

if new and significant information arises after the FEIS, then the NRC must supplement the FEIS. *See* 10 C.F.R. § 51.92(a)(2). SLOMFP's reading of 10 C.F.R. § 51.53(c)(3)(iv) would require the applicant to continually supplement the ER, even after the DEIS and FEIS are issued, until the moment the NRC takes final action and issues the license renewal. This would be duplicative and unproductive.[30] The regulations cited by PG&E and the Staff do not alter this result.[31]

Our conclusion — that neither NEPA nor Part 51 requires an applicant to supplement, update, or otherwise modify an originally compliant ER to incorporate "new and significant information" arising from events occurring after the ER was filed, is fatal to EC-5. The contention alleges that the ER is deficient because it *omits* any discussion of any event that happened after the ER was filed,[32] i.e., the issuance of findings and recommendations in the Task Force Report. However, when the ER was filed on November 23, 2009, it would have been impossible for it to discuss the import of events that occurred more than a year later. There was no omission at that time. Unless there is a duty (which we have not found, and to which the Parties have not pointed us) to supplement or update the ER, we find

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[30] Our interpretation of 10 C.F.R. § 51.53(c)(3)(iv) does not bar the applicant from voluntarily supplementing its ER. Nor does it bar the Staff from filing a request for additional information asking the applicant to supplement the ER. It merely means that the regulation does not impose an automatic and continuing duty to supplement the ER.

[31] PG&E and the Staff cite several other regulations as possible support for the proposition that the applicant has a legal duty to supplement or update an originally compliant ER to incorporate new and significant information bearing on the environmental impacts of the proposed action. During the oral argument, the Staff cited 10 C.F.R. § 50.9 and § 54.13. Similar regulations are found in many parts of the NRC regulations. *See* 10 C.F.R. §§ 30.9, 40.9, 63.13, 70.9. First they state that the "[i]nformation provided to the Commission by an applicant . . . must be complete and accurate in all material respects." *See* 10 C.F.R. §§ 50.9(a), 54.13(a). While this regulation mandates that the application be complete and accurate *when it is filed,* it does not require that it be supplemented or updated. Second, these regulations specify that "each applicant shall notify the Commission of information identified by the applicant as having, for the regulated activity, a significant implication for *public health and safety* or *common defense and security. See* 10 C.F.R. §§ 54.13(b), 50.9(b). Even if this latter provision constitutes a duty to supplement or update the application, it only applies to matters relating to "public health and safety" and "common defense and security." These phrases derive directly and soley from the AEA. *See* AEA §§ 53b, 69, 103d. They are not found in NEPA and impose no duties thereunder. Finally, PG&E and the Staff both cite 10 C.F.R. § 54.21(b), which states, in pertinent part, that "an amendment to the renewal application must be submitted [annually] that identifies any changes to the CLB [current licensing basis] of the facility that materially affects the contents of the license renewal application, including the FSAR supplement." This regulation deals with Part 54 and the CLB, not NEPA or environmental matters. And even though the ER is, certainly, a part of the application, we cannot read this provision (or any of the others) as an obscure method for mandating that an originally compliant ER be supplemented or updated annually to incorporate new and significant environmental information.

[32] EC-5 is a contention of omission. *See* Reply Memorandum at 8 ("Even a cursory reading of Intervenors' contention makes it abundantly clear that it is a contention of omission.").

no legal theory to support the proposition that the originally compliant ER was rendered noncompliant due to a subsequent accident or report. Thus, Contention EC-5 is inadmissible because it raises an issue that is not within the scope of this proceeding. 10 C.F.R. § 2.309(f)(1)(iii).

SLOMFP is, however, not without potential remedy as to its concerns about the NEPA-derived obligations respecting implications from the Fukushima events. Even though PG&E is not obligated to supplement the ER, the NRC Staff will, as it always does in license renewal proceedings, be issuing a draft supplemental EIS (DSEIS).[33] If the DSEIS fails to capture and address any information that SLOMFP believes to be "new and significant," then SLOMFP may file a NEPA contention at that time. If it is filed within 30 days of the DSEIS, the contention will be deemed timely.[34] ISO at 12-13. Alternatively, if PG&E voluntarily supplements its ER, either in response to an RAI or *sua sponte,* to address the impact of the Fukushima Accident or the Task Force Report, then a new

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[33] A point of clarification is in order. The Staff's site-specific DEIS is referred to as a draft "supplemental" EIS or DSEIS, because, in the license renewal context, the Staff has already issued a generic EIS (GEIS). Thus, the Staff's site-specific DEIS serves as a "supplement" to the GEIS. More pertinent to our analysis here, however, is the fact that if new and significant environmental information arises after the Staff issues the DSEIS, then 10 C.F.R. § 51.72(a)(2) would require the Staff to issue a supplement to the DSEIS.

[34] We establish this timetable in order to achieve some reasonable clarity in the timing and efficient management of this adjudication. In this regard, we note that the Commission has stated that, based on current information regarding the Fukushima Accident, it would be "premature" to initiate a new *generic* EIS, but has declined to provide guidance as to when a Fukushima contention, challenging an *individual* EIS, would be mature. *See, e.g., Callaway,* CLI-11-5, 74 NRC at 167, 170-71. Meanwhile, in the Fukushima context, it is virtually impossible for an intervenor to identify *when* the information becomes mature, i.e., the precise moment at which the key information (upon which the contention would be based and the 30-day clock begins to run) becomes "available" within the meaning of 10 C.F.R. § 2.309(f)(2)(i). Indeed, the NRC Staff, in this very case, takes the position that EC-5 is both too late (untimely) and too early (premature). Tr. at 594. *Compare* Staff Answer at 5-6, 11, 25 (premature) *with* 32-36 (untimely). SLOMFP acknowledges that it has filed this contention in order to avoid this perennial "Catch 22" dilemma posed by the application of the regulation. Tr. at 568. Counsel for SLOMFP alludes to the second sentence of 10 C.F.R. § 2.309(f)(2), which states that, on issues arising under NEPA, "the petitioner shall file contentions based on the applicant's environmental report." Tr. at 567. It is not clear how this comports with the fact that there is no duty to supplement the ER. SLOMFP, being (fairly we think) confused about the timing of its environmental contentions relating to the Fukushima Accident, is trying to avoid having its contention thrown out as "untimely." Tr. at 555 ("We are obligated . . . to ask you to admit a contention . . . if you want to tell us that you think it's premature, we would appreciate knowing when it's right [ripe], because we're not getting any guidance from anybody."). Our ruling establishes some fair and objectively determinable milestones (e.g., issuance of the DSEIS) which can be used to determine the timeliness of any new environmental contentions based on the Fukushima Accident and/or the Task Force Report and its recommendations.

contention, relating to those events, would need to be filed within 30 days of the filing of the supplemental ER in order to be timely.[35]

Finally, we note that the conclusion that 10 C.F.R. § 51.53(c)(3)(iv) does *not* require that an ER be supplemented to include "new and significant information" associated with events that occur after the ER was filed, does *not* mean that "new" contentions, challenging the adequacy of the ER, can never be filed under 10 C.F.R. § 2.309(f)(2).[36] The latter regulation authorizes the filing of new contentions, including environmental contentions, if they are based on information that was "not previously available" and is "materially different." As we see it, 10 C.F.R. § 2.309(f)(2) applies to any new information that reveals that the ER, as originally filed, was inadequate. For example, if new information becomes available that an endangered species has been living on the site, or that the facility has been leaking tritium into the groundwater, then 10 C.F.R. § 2.309(f)(2) authorizes the filing of a new contention, alleging that the ER, as originally filed, did not comply with Part 51. But we reject the proposition that, absent a duty to supplement, a compliant ER can be rendered noncompliant by subsequent events or the issuance of a report about a subsequent event, such as the Fukushima Accident.

Finally, even if we had found that Part 51 imposes a duty upon PG&E to supplement the ER if new and significant information subsequently arises, we find EC-5 not admissible because it fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(vi).

The logic of the contention is that implementation of the Task Force recommendations will greatly increase the reactor costs, necessarily resulting in changes to the SAMA analysis and alternatives analysis. But we fail to see, and SLOMFP has not shown, how these recommendations in and of themselves (even from such an august body as the Task Force) constitute "new and significant information" that "present[s] a seriously different picture of the environmental impact of the project from what was previously envisioned." *Callaway,* CLI-11-5, 74 NRC at 167-68. Any future regulatory modifications which might arise out of the Fukushima Accident are simply not reasonably predictable. It remains to be seen

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[35] We do not address whether, at the time of the issuance of the DSEIS (or voluntary supplement to the ER), there will actually be any "new and significant information" relating to Fukushima. It is possible that any such Fukushima contentions may *still* be premature. *See Callaway,* CLI-11-5, 74 NRC at 167. Nor do we address whether any such contention will be otherwise admissible under 10 C.F.R. § 2.309(f)(1). That remains to be seen.

[36] The third sentence of 10 C.F.R. § 2.309(f)(2) authorizes new environmental contentions if the data or conclusions in the DEIS differ significantly from the data or conclusions in the ER. That would not be the situation here. Instead, SLOMFP would be asserting the converse, i.e., that if the data and conclusions in the DEIS are NOT different from the ER (fail to capture and discuss the Fukushima Accident and recommendations of the Task Force Report) then the DEIS would, allegedly, be deficient. The latter also is a (potentially) admissible environmental contention.

what additional requirements, if any, the NRC will actually impose as a result of the Fukushima Accident and the Task Force Report.[37]

The impacts of the Task Force recommendations remain uncertain and unpredictable, despite the fact, as recently pointed out to us by SLOMFP, that on October 18, 2011, the Commissioners voted to accept and adopt some of the Task Force recommendations. Motion to Supplement Basis at 1-2 (citing SRM/SECY-11-0124). The Commissioners' vote seems to task the NRC Staff with commencing various rulemaking and other activities. But what changes, if any, actually result from the NRC process, cannot be predicted. Absent better knowledge of those regulatory changes, it is impossible to predict what additional costs, if any, such changes may impose on DCNPP. Therefore, assessing any changes that might need to be made in the DCNPP SAMA analysis or NEPA alternatives analysis, is similarly impossible. Furthermore, since SLOMFP offers nothing to link the outcome of the Fukushima events to either the DNCPP plant or to its LRA, there is no information provided to show any dispute with the application.

Thus, we conclude that EC-5 is inadmissible because SLOMFP has failed to "provide sufficient information to show that a genuine dispute exists . . . on a material issue of law or fact" as required by 10 C.F.R. § 2.309(f)(1)(vi). SLOMFP has not provided even a potentially plausible case that the Task Force "findings and recommendations" will "paint a seriously different picture" of the environmental impacts of the DCNPP.[38]

V. REFERRAL OF RULING TO COMMISSION

NRC regulations authorize a Board to refer a ruling to the Commission if the Board "determines that the decision or ruling involves a novel issue that merits Commission review at the earliest opportunity." 10 C.F.R. § 2.323(f). In this case, the Commission specifically encouraged the Board to seek guidance from the Commission with regard to new contentions based on the Fukushima Accident. *Callaway,* CLI-11-5, 74 NRC at 170 ("[S]hould a licensing board decision raise novel legal or policy questions, we encourage the boards to certify to us, in accordance with 10 C.F.R. §§ 2.319(l) and 2.323(f), those questions that would

[37] It should be noted that the Fukushima Accident involved boiling water reactors, and at least one of the Task Force recommendations (Recommendation 5) focuses on the need for hardened vents in BWRs. The reactors at the DCNPP are pressurized water reactors, which are a substantially different design.

[38] *See NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 604, 609 (2011).

benefit from our consideration."). PG&E also urged us to seek Commission guidance. PG&E Answer at 2, 8.

Our ruling herein is founded on the proposition that the applicant is under no legal obligation, pursuant to NEPA or NRC regulations, to supplement an ER even though "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts" thereafter arises. *See, e.g.,* 10 C.F.R. §§ 51.72(a)(2), 51.92(a)(2).

This ruling has significant consequences. First and foremost, it tells PG&E that it has no automatic duty to supplement or update its ER (absent an RAI), even if the Fukushima Accident constitutes (or subsequently generates) significant new information that is relevant to environmental concerns and that bears on the proposed action or its impacts. If our ruling is not correct, and PG&E indeed has a duty to supplement or update its ER, then it needs to know it now, so that it can comply. Second, our decision means that the onus is on the NRC Staff to capture and discuss, in its DSEIS, any new and significant information that arises after the ER. The Staff can, of course, enlist the assistance of the applicant in this endeavor, by issuing an RAI. But ultimately, the Staff is the party with the duty to address any such new and significant information.

The third impact of our ruling is that the earliest possible moment at which SLOMFP could be obliged to file an environmental contention based on any "new and significant information" relating to the Fukushima Accident (including the Task Force Report and any actions by the Commissioners pursuant thereto) would be 30 days after either (a) NRC issues the DSEIS for DCNPP or (b) PG&E chooses voluntarily to supplement its ER to address Fukushima.[39] The Board concludes that this is the appropriate schedule, and that the date when the DSEIS is issued and/or any voluntary supplement to the ER is filed provides clear and objectively determinable events by which to assess the timeliness of any such Fukushima-related environmental contentions. If, however, our decision is incorrect, then SLOMFP would be misled into *not* filing any alleged Fukushima environmental contentions in a timely manner, and might lose its right to obtain a hearing under the Atomic Energy Act § 189a, 42 U.S.C. § 2239(a). For all these reasons, we refer our ruling to the Commission.

VI. CONCLUSION

For the reasons set forth above, SLOMFP's motion to admit a new Fukushima-

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[39] As stated in footnote 35, *supra,* it remains uncertain whether, at the time of the issuance of the DSEIS (or supplement to the ER), there will actually be any "new and significant information" relating to Fukushima and it is possible that any such Fukushima contention may *still* be premature. *See Callaway,* CLI-11-5, 74 NRC at 167.

related environmental contention is *denied.* Further, although we grant SLOMFP's motion to supplement EC-5 based on the Commission's approval of SRM/SECY-11-0124, we conclude that the Commission's action does not change the basis for our denial of the contention. Finally, in accord with 10 C.F.R. § 2.323(f), we certify to the Commission that portion of our ruling regarding the absence of any obligation of the applicant to supplement or update its ER, as set forth above.

This Order is subject to appeal to the Commission in accordance with the provisions of 10 C.F.R. § 2.341(f). Any petitions for such review must be filed within fifteen (15) days of service of this Memorandum and Order.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Alex S. Karlin, Chairman
ADMINISTRATIVE JUDGE

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 18, 2011

Concurring Opinion of Judge Abramson

I concur completely with my colleagues in their ruling. However, I see no reason for, and am concerned about the implications of, the referral to the Commission respecting the holding that there is no obligation for an applicant to update an ER, which was compliant at the time of its submittal. The interpretation of plain-on-its-face, black letter law on that topic is simple and accurate, and does not fall into the category of matters which are worthy of certification to the Commission. It raises no novel legal or policy issue. Rather it simply recognizes and effectuates the fact that NEPA compliance is an obligation of the Agency, not the applicant, and that our regulations are plain on their face as to the applicant's obligations. Once an applicant has submitted an ER which complies with the regulatory requirements applicable to it at the time of its submittal, the applicant has fulfilled its regulatory requirements, and the Staff, as it proceeds to fulfill its obligations under NEPA, has, as my colleagues observe, authority, frequently exercised, to ask the applicant for additional information when important post-submittal matters arise.

Moreover, I am concerned that the mere act of certifying this portion of our ruling to the Commission casts a cloud over what is a straightforward and obvious result. For this reason, I disagree with my colleagues' certification to the Commission of this portion of our holding.

Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

E. Roy Hawkens, Chairman
Dr. Michael F. Kennedy
Dr. William C. Burnett

In the Matter of **Docket Nos. 52-040-COL**
52-041-COL
(ASLBP No. 10-903-02-COL-BD01)

FLORIDA POWER & LIGHT COMPANY
(Turkey Point Nuclear Generating Plant, Units 6 and 7) **November 21, 2011**

ENVIRONMENTAL IMPACT STATEMENT: SUPPLEMENTATION

NRC RESPONSIBILITIES

The regulations that govern the conditions for supplementing environmental review documents direct the NRC Staff, not the license applicant, to supplement the draft Environmental Impact Statement if "[t]here are substantial changes in the proposed action that are relevant to environmental concerns" or "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 10 C.F.R. § 51.72(a); *see also id.* § 51.92(a) (requiring similar supplementation after issuance of final EIS).

ENVIRONMENTAL IMPACT STATEMENT

NATIONAL ENVIRONMENTAL POLICY ACT: NRC RESPONSIBILITIES

Until the NRC Staff issues its draft or final Environmental Impact Statement, it cannot plausibly be argued that the document is inadequate or otherwise fails to satisfy NEPA.

ENVIRONMENTAL IMPACT STATEMENT

ENVIRONMENTAL REPORT

NATIONAL ENVIRONMENTAL POLICY ACT: NRC RESPONSIBILITIES

REQUEST FOR ADDITIONAL INFORMATION

The NRC Staff, pursuant to its obligation to prepare an adequate Environmental Impact Statement (*see* LBP-11-6, 73 NRC 149, 177 n.25 (2011)), is empowered to issue requests for additional information relevant to an applicant's Environmental Report (*see* 10 C.F.R. § 51.41), and an applicant may update an Environmental Report if relevant new and significant information becomes available. An applicant, however, is under no regulatory or statutory obligation to effect such an update.

ENVIRONMENTAL IMPACT STATEMENT: SUPPLEMENTATION

RULES OF PRACTICE: NEW AND AMENDED CONTENTIONS

The governing regulations provide that a "petitioner may amend [its] contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement [EIS], . . . or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents." 10 C.F.R. § 2.309(f)(2). This regulation confers a remedy on intervenors to the extent they believe the Staff's draft or final EIS fails to account for new and significant information.

NATIONAL ENVIRONMENTAL POLICY ACT: NRC RESPONSIBILITIES

NEPA only mandates an examination of "reasonably foreseeable environmental impacts of the proposed project." *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 46 (2010). Until the

Commission defines and imposes on licensees new requirements arising from the Fukushima events, such requirements are highly speculative. And any potential environmental impacts they might cause are likewise highly speculative and not ripe for challenge. Further, until any requirements are finalized and implemented, it is impossible to foresee what environmental impacts they would yield.

MEMORANDUM AND ORDER

(Denying Request to Suspend Licensing Proceeding, Granting Motion to Supplement, and Denying Admission of Proposed New Fukushima Contention)

Intervenors Dan Kipnis, Mark Oncavage, Southern Alliance for Clean Energy, and National Parks Conservation Association (hereinafter referred to collectively as Joint Intervenors)[1] and Intervenor Citizens Allied for Safe Energy, Inc. (CASE)[2] have each moved to admit an identical new contention regarding the NRC's July 2011 Near-Term Task Force Report on the March 2011 events at Fukushima, Japan. The Applicant, Florida Power & Light Company (FPL), and the NRC Staff oppose admission of this contention.[3] As discussed below, we deny admission of

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[1] [Joint Intervenors'] Motion to Admit New Contention to Address the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) [hereinafter Joint Intervenors' Motion]; [Joint Intervenors'] Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) [hereinafter Joint Intervenors' Contention].

On October 28, 2011, Joint Intervenors moved to supplement their contention. *See* [Joint Intervenors'] Motion for Leave to Supplement Basis of Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Oct. 28, 2011) [hereinafter Joint Intervenors' Supplemental Motion].

[2] [CASE's] Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011); [CASE's] Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011). Because CASE's motion and its contention are substantially identical to those filed by Joint Intervenors, we will refer only to Joint Intervenors' motion and contention. This decision, however, applies with equal force to both requests.

[3] [FPL's] Response Opposing Admission of SACE's and CASE's Late Filed Contentions (Sept. 6, 2011) [hereinafter FPL Answer]; NRC Staff Answer to "Motion to Admit New Contention Regarding the Safety and Environmental Implications of the NRC Task Force Report on the Fukushima Dai-ichi Accident" Filed by Citizens Allied for Safe Energy Inc. ("CASE") and NRC Staff Answer to "Motion to Admit New Contention to Address the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident" Filed by Joint Intervenors (Sept. 6, 2011) [hereinafter NRC Staff Answer].

the contention because it is premature and does not meet the NRC's contention admissibility requirements.

I. BACKGROUND

This proceeding concerns FPL's combined license (COL) application for two new nuclear power reactors, Units 6 and 7, at its Turkey Point facility near Homestead, Florida.[4] On February 28, 2011, we granted Joint Intervenors' and CASE's hearing requests and petitions to intervene. *See* LBP-11-6, 73 NRC 149, 251-52 (2011). We also granted a request by the Village of Pinecrest to participate as an interested local governmental body. *See id.* at 252.

In March 2011, following the events at the Fukushima Dai-ichi Nuclear Power Plant on the east coast of Honshu, Japan, the Chairman of the Commission directed the NRC Staff to "establish a senior level agency task force to conduct a methodical and systematic review of [the agency's] processes and regulations to determine whether the agency should make additional improvements to [its] regulatory system and make recommendations to the Commission for its policy direction." NRC Actions Following the Events in Japan, COMGBJ-11-0002 at 1 (Mar. 21, 2011). On June 29, 2011, we denied a request from CASE to admit new versions of previously rejected contentions, which were ostensibly updated to reflect the events at Fukushima. *See* LBP-11-15, 73 NRC 629, 631 n.1 (2011). On July 12, 2011, the NRC Fukushima Task Force (Task Force) published its near-term recommendations. *See* U.S. Nuclear Regulatory Commission, Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident (July 12, 2011), *available at* http://pbadupws.nrc.gov/docs/ML1118/ML111861807.pdf [hereinafter Task Force Report].

On September 9, 2011, the Commission denied requests by Joint Intervenors and CASE (along with substantially identical requests by intervenors in other reactor licensing proceedings) to suspend this and other reactor licensing proceedings in light of the events at Fukushima. *See Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 175-76 (2011).[5] On September 21, 2011,

[4] *See* [FPL, COL] Application for the Turkey Point Units 6 & 7, Notice of Hearing, Opportunity to Petition for Leave to Intervene and Associated Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information for Contention Preparation, 75 Fed. Reg. 34,777 (June 18, 2010).

[5] Joint Intervenors and CASE filed motions with this Board that were substantially identical to motions they filed with the Commission requesting that the instant licensing proceeding be suspended pending resolution of their requests for rulemaking. *See* [Joint Intervenors'] Rulemaking Petition to *(Continued)*

we, *inter alia,* denied CASE's motion for reconsideration of LBP-11-15 and its requests to admit other newly proffered contentions concerning the events at Fukushima.[6]

In a Staff Requirements Memorandum (SRM) dated October 18, 2011, the Commission ordered the NRC Staff to implement "without delay" some of the recommendations of the Task Force and to complete its review of the lessons learned from the events at Fukushima by 2016. *See* Staff Requirements — SECY-11-0124 — Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report at 1 (Oct. 18, 2011), *available at* http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2011/2011-0124srm.pdf [hereinafter SRM].

II. JOINT INTERVENORS' AND CASE'S PROPOSED NEW CONTENTION IS PREMATURE AND INADMISSIBLE

In their newly proffered contention, Joint Intervenors and CASE argue that FPL's Environmental Report (ER) is deficient under the National Environmental Policy Act of 1969 (NEPA) "because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report." Joint Intervenors' Contention at 5. In light of the Task Force's recommendation to incorporate some severe accidents into a plant's design basis, as well as its conclusion that certain "SAMAs [severe accident mitigation alternatives] . . . should be elected as a matter of course," Joint Intervenors and CASE assert that the cost-benefit analysis for SAMAs in

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Rescind Prohibition Against Consideration of Environmental Impacts of Severe Reactor and Spent Fuel Pool Accidents and Request to Suspend Licensing Decision (Aug. 11, 2011); [CASE's] Rulemaking Petition to Rescind Prohibition Against Consideration of Environmental Impacts of Severe Reactor and Spent Fuel Pool Accidents and Request to Suspend Licensing Decision (Aug. 12, 2011). In CLI-11-5, the Commission declined to suspend this licensing proceeding because "petitioners have not shown that continuation of licensing proceedings, pending consideration of the rulemaking petition, would 'jeopardize the public health and safety, prove an obstacle to fair and efficient decisionmaking, or prevent appropriate implementation of any pertinent rule or policy changes that might emerge' from [the agency's] continued evaluation of the impacts of the events in Japan." *Callaway,* CLI-11-5, 74 NRC at 174 (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 380 (2001)). Even assuming this Licensing Board (as opposed to the Commission) was empowered to grant a request to suspend a licensing proceeding pending disposition of a rulemaking petition (*but see* 10 C.F.R. § 2.802(d)), the Commission's decision in CLI-11-5 mandates that Joint Intervenors' and CASE's suspension requests be denied.

[6] Licensing Board Memorandum and Order (Denying CASE's Motion to Reconsider Rejection of Amended Contentions and to Admit Two Newly Proffered Contentions, and Denying FPL's Request to Impose Remedial Measures on CASE) (Sept. 21, 2011) (unpublished).

FPL's ER should be reexamined. *Id.* at 14-15.[7] Relying on the declaration of their expert, Dr. Arjun Makhijani, Joint Intervenors and CASE argue that if the NRC required some of these SAMAs to be implemented, the cost would be so great that other alternatives to the proposed action and the no-action alternative "may be more attractive," thus altering the ultimate conclusions of the ER and, ultimately, the Environmental Impact Statement (EIS) for Turkey Point Units 6 and 7. *Id.* at 15. Joint Intervenors and CASE also argue that the ER must be supplemented because language in the Task Force Report suggests that seismic and flooding hazards, design alternatives to counter such hazards, and other plant components need to be reevaluated for the Turkey Point site. *See* Joint Intervenors' Contention at 16-18.

Turning their attention to the NRC, Joint Intervenors and CASE claim (Joint Intervenors' Contention at 20) that their contention challenges the "NRC's failure to fully comply with NEPA and federal regulations for the implementation of NEPA in its EIS for the proposed Turkey Point reactors, Units 6 and 7." Finally, in light of the Commission's mid-October directive to the Staff to complete its review of the lessons learned and to implement recommendations from the Task Force Report, Joint Intervenors' motion of October 28, 2011 seeks to supplement the basis of the newly proffered contention, maintaining that, as supplemented, the contention is ripe and admissible. *See* Joint Intervenors' Supplemental Motion at 1-2.

FPL and the NRC Staff argue that the proposed new contention should be rejected, even as supplemented by Joint Petitioners' motion of October 28, 2011. *See* [FPL's] Response Opposing [Joint Intervenors'] Motion to Amend Late Filed Contention (Nov. 7, 2011); NRC Staff Answer to "Motion for Leave to Supplement Basis of Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report"

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[7] SAMAs are "safety enhancements such as a new hardware item or procedure intended to reduce the risk of severe accidents." *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 290-91 (2010). As the Commission explained in *Pilgrim,* the SAMA analysis conducted by the NRC

> evaluates a number of potential accident progression sequences (scenarios) and the possible safety enhancements that may reduce the risk of those accident scenarios. The analysis assesses whether and to what extent the probability-weighted consequences of the analyzed severe accident sequences would decrease if a specific SAMA were implemented at a particular facility. SAMA analysis is used for determining whether particular SAMAs would sufficiently reduce risk . . . for the SAMA to be cost-effective to implement. . . . If the cost of implementing a particular SAMA is greater than its estimated benefit, the SAMA is not considered cost-beneficial to implement.

Id. at 291.

(Nov. 7, 2011); FPL Answer at 7-38; NRC Staff Answer at 8-21. We agree that the contention is not admissible.[8]

A. The Newly Proffered Contention in the August 11, 2011 Motion Is Procedurally Deficient

At the outset, we find no merit in the argument advanced by Joint Intervenors and CASE that FPL must supplement its ER in light of the recommendations in the Task Force Report. *See* Joint Intervenors' Contention at 13-18. The regulations that govern the conditions for supplementing environmental review documents direct the NRC Staff, not the license applicant, to supplement the draft EIS if "[t]here are substantial changes in the proposed action that are relevant to environmental concerns" or "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 10 C.F.R. § 51.72(a); *see also id.* § 51.92(a) (requiring similar supplementation after issuance of final EIS). Joint Intervenors and CASE have cited no legal requirement that obligates FPL to supplement its ER upon the occurrence of new information that arises during the pendency of this COL proceeding. Therefore, their assertion that the ER *must* be supplemented to take account of allegedly new and significant information is, as a procedural matter, unfounded and must be rejected. *See Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 665-68 (2011).[9]

Joint Intervenors' and CASE's assertion (*see* Joint Intervenors' Contention at 18-20) that the EIS improperly fails to account for the events at Fukushima likewise suffers a fatal procedural flaw. The NRC Staff has not yet completed a draft or final EIS.[10] Until each document is issued, it cannot plausibly be argued that the document is inadequate or otherwise fails to satisfy NEPA. Accordingly, insofar as Joint Intervenors and CASE seek to challenge the NRC's compliance with NEPA in light of the NRC's Fukushima Task Force Report, we conclude —

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[8] A discussion of the 10 C.F.R. § 2.309 contention admissibility requirements may be found in our prior decisions. *See* LBP-11-15, 73 NRC at 633-35 (discussing the requirements for new contentions); *see also* LBP-11-6, 73 NRC at 168-70 (discussing multifactor contention admissibility test in section 2.309(f)(1)).

[9] Of course, the NRC Staff, pursuant to its obligation to prepare an adequate EIS (*see* LBP-11-6, 73 NRC at 177 n.25), is empowered to issue requests for additional information relevant to an applicant's ER (*see* 10 C.F.R. § 51.41), and an applicant may update an ER if relevant new and significant information becomes available. The salient point, however, is that an applicant is under no regulatory or statutory obligation to effect such an update.

[10] On November 9, 2011, the NRC Staff advised that its current review schedule contemplates completing the draft EIS in February 2013, and completing the final EIS in February 2014. *See* Letter from Robert M. Weisman, Counsel for NRC Staff, to Atomic Safety and Licensing Board (Nov. 9, 2011).

in agreement with other Licensing Boards that have addressed that issue[11] — that their challenge is premature.[12]

B. The Newly Proffered Contention in the August 11, 2011 Motion Is Not Admissible in Any Event

In addition to suffering from the above procedural deficiencies, we conclude that the newly proffered contention — which alleges shortcomings in the COL application for failing to address the environmental implications of findings and recommendations in the NRC's Fukushima Task Force Report (*see* Joint Intervenors' Contention at 5) — fails to satisfy the admissibility requirements for contentions. *See* 10 C.F.R. § 2.309(f)(1); *supra* note 8.

In CLI-11-5, the Commission, *inter alia,* denied requests for generic NEPA reviews in light of the events at Fukushima, declaring that

> [a]lthough the Task Force completed its review and provided its recommendations . . . , the agency continues to evaluate the [Fukushima] accident and its implications for U.S. facilities and the full picture of what happened at Fukushima is still far from clear. . . . [W]e do not know today the full implications of the Japan events for U.S. facilities. Therefore, any generic NEPA duty — if one were appropriate at all — does not accrue now.

Callaway, CLI-11-5, 74 NRC at 167. The Commission stated that "[i]f . . . new and significant information comes to light that requires consideration as part of the ongoing preparation of application-specific NEPA documents, the agency will assess the significance of that information, as appropriate." *Id.*

In the instant case, Joint Intervenors' and CASE's newly proffered contention is based on the identical information underlying the Commission's rejection, in CLI-11-5, of the request to commence a generic NEPA review. They allege no facts linking the events at Fukushima to the sufficiency of NEPA-related documents connected to FPL's COL application for Turkey Point Units 6 and 7. This omission renders their newly proffered contention inadmissible for failure

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[11] *See, e.g., Diablo Canyon,* LBP-11-32, 74 NRC at 665; *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 604, 609-10 (2011).

[12] In addition to specifying the circumstances under which the NRC Staff must prepare supplemental environmental review documents (*see* 10 C.F.R. §§ 51.72(a), 51.92(a)), the governing regulations provide that a "petitioner may amend [its] contentions or file new contentions if there are data or conclusions in the NRC draft or final [EIS], . . . or any supplements relating thereto, that differ significantly from the data or conclusions in the applicant's documents." *Id.* § 2.309(f)(2). The latter provision confers a remedy on Joint Intervenors and CASE to the extent they believe the Staff's draft or final EIS fails to account for new and significant information arising from the Fukushima events.

"to show that a genuine dispute exists with [FPL] on a material issue of law or fact." 10 C.F.R. § 2.309(f)(1)(vi).

C. Joint Intervenors' October 28, 2011 Motion Does Not Render the Newly Proffered Contention Admissible

In their October 28, 2011 motion seeking to supplement the basis of their newly proffered contention (*see supra* note 1), Joint Intervenors ask this Board to consider the Commission's mid-October SRM, which allegedly renders their new contention ripe and also supports its admissibility. Specifically, Joint Intervenors assert that "[b]y ordering the Staff to adopt and implement numerous Task Force recommendations, including redefining what level of protection of public health and safety should be regarded as adequate, the Commission makes clear that it believes the lessons learned from the Fukushima accident have safety and environmental significance." Joint Intervenors' Supplemental Motion at 2.

We grant Joint Intervenors' motion to consider the Commission's mid-October SRM. In our view, however, the SRM does not cure the prematurity and admissibility defects in Joint Petitioners' newly proffered contention.

The SRM does not impose any new requirements on NRC licensees in general, much less on FPL in particular. Rather, it simply confirms that in the coming years, *some* new requirements will likely be imposed, and that this outcome is intended to be achieved through a transparent and clear mechanism such as, for example, an order or a rulemaking. *See* SRM at 1. Notably, the SRM does *not* specify what those requirements will be. Moreover, until the review process is complete, it is impossible to predict what those requirements will be.

As relevant here, NEPA only mandates an examination of "reasonably foreseeable environmental impacts of the proposed project." *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 46 (2010). Until the Commission defines and imposes on licensees new requirements arising from the Fukushima events, such requirements are highly speculative. And any potential environmental impacts they might cause are likewise highly speculative and not ripe for challenge. Further, until any requirements are finalized and implemented, it is impossible to foresee what environmental impacts they would yield. Accordingly, Joint Intervenors' newly proffered contention, even as supplemented by their October 28 motion, remains inadmissible pursuant to 10 C.F.R. § 2.309(f)(1)(vi) for failing to present a genuine dispute on a material issue of law or fact. *See Diablo Canyon,* LBP-11-32, 74 NRC at 671.

III. CONCLUSION

For the foregoing reasons, we (1) *deny* the motions to suspend this licensing

proceeding (*supra* note 5), and (2) *deny* the motions of August 11, 2011, to admit a new NEPA contention (*supra* Part II.A and II.B), even as supplemented by Joint Intervenors' motion of October 28, 2011, which we *grant. See supra* Part II.C.

This decision is subject to interlocutory review in accordance with the provisions of 10 C.F.R. § 2.341(f)(2). A petition for review that meets the requirements of section 2.341(f)(2) must be filed within fifteen (15) days of service of this decision. *See* 10 C.F.R. § 2.341(b)(1).

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

E. Roy Hawkens, Chairman
ADMINISTRATIVE JUDGE

Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

Dr. William C. Burnett
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 21, 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

William J. Froehlich, Chairman
Nicholas G. Trikouros
Dr. William E. Kastenberg

In the Matter of **Docket No. 50-346-LR**
(ASLBP No. 11-907-01-LR-BD01)

FIRSTENERGY NUCLEAR OPERATING COMPANY
(Davis-Besse Nuclear Power Station, Unit 1) **November 23, 2011**

This proceeding concerns FirstEnergy Nuclear Operating Company's application to renew its operating license for the Davis-Besse Nuclear Power Station. The intervenors have proposed a new contention based upon the near-term report of the task force that the Nuclear Regulatory Commission created to investigate the implications for United States nuclear power plants of the events and accident at the Fukushima Dai-ichi plant in Japan. Their motion to admit the proposed new contention must be rejected under 10 C.F.R. § 2.323(b), and their proposed new contention is inadmissible under subsections (iii), (iv), and (vi) of 10 C.F.R. § 2.309.

RULEMAKING

The Board does not consider intervenor's petition, which requests rulemaking and suspension of the proceeding, because the discussion in the petition's body specifically directs those requests to the Commission, which has already responded to these requests.

LATE-FILED MOTION, GOOD CAUSE

Intervenors have not shown good cause for filing their opposition to the motions to strike 3 days late. Intervenors' explanation that their counsel "has been overwhelmed with work" and inadvertently confused federal court procedural rules with this agency's is wholly inadequate. The Commission has repeatedly stated that failure to read carefully NRC regulations does not constitute good cause for accepting late-filed petitions. Nor do parties' other professional obligations relieve them of their obligation to meet regulatory deadlines.

REPLY BRIEF

The proper scope of a reply brief is limited to the scope of the arguments set forth in the original motion or petition. Intervenors cannot mend their original contention, which lacked any reference to the Davis-Besse license renewal application or environmental report, by providing those references in their reply brief.

MOTIONS

Section 2.323(b) provides that a motion must be rejected if it does not include a certification by the attorney or representative of the moving party that the movant has made a sincere effort to contact other parties in the proceeding and resolve the issue raised in the motion, and that the movant's efforts to resolve the issue have been unsuccessful. Intervenors' motion to admit a new contention must be rejected because they made no attempt to contact the applicant or its counsel to resolve the issues raised in the motion and because their motion does not contain the certification required by section 2.323(b).

PRECEDENTIAL EFFECT

While the Atomic Safety and Licensing Appeal Panel is no longer in existence, the decisions of its Appeal Board continue to be binding on Licensing Boards to the degree they concern a regulation or regulatory matter that has not been revised or otherwise materially altered.

CONTENTIONS, ADMISSIBILITY

Having merely slapped a two-sentence introduction onto a pleading filed in an unrelated license renewal proceeding, intervenors have not proposed an admissible new contention because the contention does not refer to the license renewal application or environmental report at issue in this proceeding.

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act, which applies to agencies of the federal government, cannot be read to require a license applicant to update its environmental report.

MEMORANDUM AND ORDER
(Denying Motion to Admit New Contention)

Before this Board is a motion to admit a proposed new contention submitted by Beyond Nuclear, Citizens Environmental Alliance of Southwestern Ontario, Don't Waste Michigan, and the Green Party of Ohio (collectively, Intervenors).[1] This proposed new contention is based upon the near-term report of the task force (Near-Term Task Force Report)[2] that the U.S. Nuclear Regulatory Commission (NRC) created to investigate the implications for United States nuclear power plants of the events and accident at the Fukushima Dai-ichi plant in Japan. The NRC Staff and FirstEnergy Nuclear Operating Company (FirstEnergy or Applicant) argue the motion to admit should be denied because, among other reasons, the proposed new contention does not challenge the application at issue in this proceeding,[3] i.e., FirstEnergy's license renewal application (LRA) for the Davis-Besse Nuclear Power Station, Unit 1 (Davis-Besse).[4] The Board determines that the proposed new contention is not admissible because it does not satisfy multiple elements of 10 C.F.R. § 2.309(f)(1). In particular, it does not provide sufficient information to show that a genuine dispute exists with the Davis-Besse

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[1] Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) [hereinafter Motion to Admit]; Contention in Support of Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 12, 2011) [hereinafter Proposed New Contention]; Proposed New Contention, Attach., Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report [hereinafter *Seabrook* Attachment].

[2] Dr. Charles Miller et al., Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident (July 12, 2011) (ADAMS Accession No. ML111861807) [hereinafter Near-Term Task Force Report].

[3] NRC Staff's Answer in Opposition to Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident at 2 (Sept. 6, 2011) [hereinafter NRC Staff Opposition]; FirstEnergy's Answer Opposing Joint Petitioners' Motion to Admit and Proposed Contention Regarding Fukushima Task Force Report at 2 (Sept. 6, 2011) [hereinafter FirstEnergy Opposition].

[4] License Renewal Application; Davis-Besse Nuclear Power Station (Aug. 2010) (ADAMS Accession Nos. ML102450567, ML102450563).

LRA, as required by 10 C.F.R. § 2.309(f)(1)(vi). Therefore we deny Intervenors' motion to admit.

I. BACKGROUND

Previously, in LBP-11-13, this Board admitted Intervenors as parties in this proceeding and admitted, as limited and reworded, two contentions that challenge the analysis in FirstEnergy's environmental report (ER)[5] of (1) reasonable base load power alternatives and (2) severe accident mitigation alternatives (SAMA).[6] FirstEnergy's appeal of LBP-11-13 is pending before the Commission.[7]

Intervenors moved to admit the proposed new contention on August 11, 2011,[8] and submitted the contention in a separate filing on August 12.[9] On September 6, 2011, FirstEnergy and the NRC Staff filed oppositions to Intervenors' motion to admit.[10] Intervenors filed a reply to the oppositions on September 13, 2011.[11]

FirstEnergy and the NRC Staff pointed out in their oppositions that although Intervenors' motion to admit purported to attach a rulemaking petition, no such petition was served on the parties.[12] Apparently, Intervenors had e-mailed a rulemaking petition, under caption for submission before the Board, to the Rulemaking.Comments@nrc.gov e-mail address on August 11, 2011.[13] Intervenors served the rulemaking petition on the Board and the parties through the NRC's

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[5] Appendix E; Applicant's Environmental Report; Operating License Renewal Stage; Davis-Besse Nuclear Power Station at 7.2-7 (Aug. 2010).

[6] LBP-11-13, 73 NRC 534, 588-89 (2011). The Board discusses the procedural history leading up to admission of these two contentions in LBP-11-13. *See id.* at 540-42.

[7] FirstEnergy's Notice of Appeal of LBP-11-13 (May 6, 2011).

[8] Motion to Admit at 1.

[9] Proposed New Contention at 1.

[10] NRC Staff Opposition at 1; FirstEnergy Opposition at 1.

[11] Intervenors' Reply Morandum [sic] to Staff and Applicant Oppositions to Admission of New Contention (Sept. 13, 2011) [hereinafter Reply]; *id.,* Attach., Reply Memorandum Regarding Timeliness and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings [hereinafter Reply Memorandum].

[12] FirstEnergy Opposition at 19 n.85 (citing *Seabrook* Attachment at 4); NRC Staff Opposition at 3 (citing *Seabrook* Attachment at 4).

[13] E-mail from Terry Lodge, Counsel for Intervenors, to Rulemaking Comments, NRC (Aug. 11, 2011); *id.,* Attach., Rulemaking Petition to Rescind Prohibition Against Consideration of Environmental Impacts of Severe Reactor and Spent Fuel Pool Accidents and Request to Suspend Licensing Decision.

E-Filing System on September 15, 2011.[14] FirstEnergy filed an answer to the rulemaking petition on September 26, 2011.[15]

Meanwhile, on September 9, 2011, the Commission issued CLI-11-5 in response to a series of emergency petitions filed in a number of adjudicatory, licensing, and rulemaking proceedings, including the proceeding before us.[16] As is relevant here, the Commission in CLI-11-5 denied requests to suspend this and other ongoing adjudicatory and licensing activities pending full consideration of the safety and environmental implications of the damage to the Fukushima Dai-ichi Nuclear Power Station following the March 11, 2011 earthquake and tsunami.[17] Noting that Intervenors' reply addressed CLI-11-5, FirstEnergy moved for leave to file a surreply and simultaneously filed the surreply on September 20, 2011.[18]

FirstEnergy and the NRC Staff moved to strike portions of Intervenors' reply pleading on September 23, 2011, as outside the scope of the original pleading.[19] Intervenors filed an opposition to the motions to strike on October 6, 2011,[20] and filed a motion for leave to file their opposition *nunc pro tunc,* which was served

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[14] Notice and Certificate of Service of Rulemaking Petition to Rescind Prohibition Against Consideration of Environmental Impacts of Severe Reactor and Spent Fuel Pool Accidents and Request to Suspend Licensing Decision at 1 (Sept. 15, 2011); *id.,* Attach., Rulemaking Petition to Rescind Prohibition Against Consideration of Environmental Impacts of Severe Reactor and Spent Fuel Pool Accidents and Request to Suspend Licensing Decision [hereinafter Rulemaking Petition].

[15] FirstEnergy's Answer to Petition for Rulemaking and Request to Suspend (Sept. 26, 2011) [hereinafter FirstEnergy Answer to Rulemaking Petition].

[16] *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 145-46 (2011).

[17] *Id.* at 146.

[18] FirstEnergy's Unopposed Motion for Leave to File a Surreply to Intervenors' Reply to Applicant and NRC Staff Answers at 2-3 (Sept. 20, 2011) (quoting Reply at 2; Reply Memorandum at 1-4); FirstEnergy's Surreply to Intervenors' Reply to Applicant and NRC Staff Answers Opposing Admission of New Contention (Sept. 20, 2011).

[19] FirstEnergy's Motion to Strike Portions of Intervenors' Reply at 2 (Sept. 23, 2011) [hereinafter FirstEnergy Motion to Strike]; NRC Staff's Motion to Strike Portions of Intervenor[s'] Reply Memorandum to Staff and Applicant Oppositions to Admission of New Contention at 1 (Sept. 23, 2011); Corrected NRC Staff's Motion to Strike Portions of Intervenor[s'] Reply Memorandum to Staff and Applicant Oppositions to Admission of New Contention at 1 (Sept. 23, 2011) [hereinafter NRC Staff Corrected Motion to Strike].

[20] Intervenors' Opposition to FENOC and NRC Staff Motions to Strike Portions of Intervenors' Reply in Support of Admitting Contention Concerning Fukushima Dai-ichi Accident at 1 (Oct. 6, 2011) [hereinafter Intervenors Opposition to Motions to Strike].

and refiled on October 12.[21] On October 19, FirstEnergy filed an opposition to Intervenors' motion for leave to file an opposition to the motions to strike.[22]

Intervenors moved for leave to supplement the basis of their proposed new contention on October 28, 2011.[23] The NRC Staff filed an opposition to that motion on November 7, 2011,[24] and FirstEnergy filed an opposition on November 18, 2011.[25]

II. DISCUSSION AND ANALYSIS

A. Rulemaking Petition

Intervenors' rulemaking petition, filed under caption for submission before the Board, asks the Commission (1) to "rescind regulations in 10 C.F.R. Part 51 that make generic conclusions about the environmental impacts of severe reactor and spent fuel pool accidents and that preclude consideration of those issues in individual licensing proceedings" and (2) to suspend this proceeding while considering this petition and the proposed new contention that was separately filed before this Board.[26] FirstEnergy argues that the Board should summarily deny the petition because the Board has no jurisdiction to initiate a rulemaking proceeding and no responsibility to consider requests for suspension.[27] FirstEnergy points

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[21] Motion for Leave for Intervenors' Opposition to FENOC and NRC Staff Motions to Strike Portions of Intervenors' Reply in Support of Admitting Contention Concerning Fukushima Dai-ichi Accident to Be Deemed Filed *Instanter* at 1 (dated Oct. 7, 2011; served Oct. 12, 2011); *Refiled* Motion for Leave for Intervenors' Opposition to FENOC and NRC Staff Motions to Strike Portions of Intervenors' Reply in Support of Admitting Contention Concerning Fukushima Dai-ichi Accident to Be Deemed Filed *Instanter* at 1 (Oct. 12, 2011) [hereinafter Intervenors Refiled Motion for Leave to Oppose Motions to Strike]. Intervenors explain they filed the motion for leave to oppose the motions to strike in WordPerfect X4 format on October 7 and refiled in pdf format on October 12 because there was "no acknowledgement nor notice . . . sent to counsel." Intervenors Refiled Motion for Leave to Oppose Motions to Strike at 1 n.1.

[22] FirstEnergy's Answer to Intervenors' Motion for Leave at 1 (Oct. 19, 2011) [hereinafter FirstEnergy Opposition to Intervenors Motion for Leave].

[23] Motion for Leave to Supplement Basis of Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report at 1 (Oct. 28, 2011) [hereinafter Motion to Supplement].

[24] NRC Staff's Answer to Motion for Leave to Supplement Basis of Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Nov. 7, 2011) [hereinafter NRC Opposition to Motion to Supplement].

[25] First Energy [sic] Nuclear Operating Company's Answer Opposing Intervenors' Motion for Leave to Supplement Basis of Contention Regarding Fukushima Task Force Report (Nov. 18, 2011) [hereinafter FirstEnergy Opposition to Motion to Supplement].

[26] Rulemaking Petition at 1-2, 4.

[27] FirstEnergy Answer to Rulemaking Petition at 3 (citing 10 C.F.R. § 2.802).

out further that the Commission has already directed the NRC Staff to examine the implications of the Fukushima Dai-ichi accident for United States nuclear facilities and has denied a request to suspend this license renewal proceeding.[28]

Despite the petition's caption, the Board surmises that the requests for rulemaking and suspension were intended for the Commission's consideration because the discussion in the petition's body specifically directs these requests to the Commission.[29] The Commission responded to these requests in CLI-11-5.[30] The Commission stated that

> petitioners have not shown that continuation of licensing proceedings, pending consideration of the rulemaking petition, would "jeopardize the public health and safety, prove an obstacle to fair and efficient decisionmaking, or prevent appropriate implementation of any pertinent rule or policy changes that might emerge" from [the agency's] continued evaluation of the events in Japan.[31]

Accordingly, the Board need not address further the relief requested in the rulemaking petition.

B. Proposed New Contention

As stated above, Intervenors also moved to admit a proposed new contention that challenges the adequacy of the Davis-Besse ER "on the basis that it fails to address the extraordinary environmental and safety implications of the findings and recommendations raised by the Nuclear Regulatory Commission's Fukushima Task Force" in its near-term report.[32] Intervenors argue that

> admitting the new contention is necessary to ensure that the Nuclear Regulatory Commission . . . fulfills its nondiscretionary duty under the National Environmental Policy Act ("NEPA") to consider the new and significant information set forth in the [Near-Term] Task Force Report before it issues a Combined License ("COL") for Davis-Besse.[33]

One day later, Intervenors filed their proposed new contention "in support" of the motion to admit a new contention.[34] Intervenors' new contention consists

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[28] *Id.* at 3 (quoting *Callaway,* CLI-11-5, 74 NRC at 168, 175).

[29] Rulemaking Petition at 1, 4.

[30] *Callaway,* CLI-11-5, 74 NRC at 175.

[31] *Callaway,* CLI-11-5, 74 NRC at 174 (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 380 (2001)).

[32] Motion to Admit at 1-2 (citing Near-Term Task Force Report).

[33] *Id.* at 2. We note that FirstEnergy has applied here for a license renewal, not a COL.

[34] Proposed New Contention at 1.

of a two-sentence introductory paragraph[35] by their counsel and an attachment consisting of the contention that was filed in the *Seabrook* license renewal proceeding.[36] Intervenors propose to "incorporate by reference as though written herein the averments and arguments" made by the intervenors in the *Seabrook* license renewal proceeding.[37] As Intervenors have submitted the proposed new contention, it states:

> The ER for Seabrook license renewal fails to satisfy the requirements of NEPA because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report. As required by NEPA and the NRC regulations, these implications must be addressed in the ER.[38]

The NRC Staff and FirstEnergy oppose admission of the proposed new contention, arguing that Intervenors fall short of meeting the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1) because the proposed new contention raises issues that are immaterial to this proceeding and beyond its scope, fails to challenge the Davis-Besse LRA, and fails to supply an adequate factual basis.[39] FirstEnergy also argues that Intervenors' filings should be summarily dismissed because they are untimely and because Intervenors failed to consult the other parties before filing the motion.[40]

In their reply to the oppositions, Intervenors argue that the new contention is a contention of omission "challenging the completeness" of FirstEnergy's LRA and ER "in their entirety."[41] Intervenors fault FirstEnergy for not incorporating in the ER any lessons learned from the "new and significant information" revealed by the Near-Term Task Force Report.[42] Intervenors assert NEPA requires an applicant to update new and significant information in its ER and that the agency must include such new and significant information in its Draft Supplemental Environmental Impact Statement (DSEIS).[43] Intervenors conclude that this "is a significant omission that needs to be corrected to comply with NEPA" and that it is the "NRC's responsibility, not the Intervenors'."[44] Intervenors also attached and

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[35] *Id.* at 1.

[36] *Seabrook* Attachment.

[37] Proposed New Contention at 1.

[38] *Seabrook* Attachment at 5.

[39] NRC Staff Opposition at 2; FirstEnergy Opposition at 16-17.

[40] FirstEnergy Opposition at 5, 9.

[41] Reply at 3.

[42] *Id.*

[43] *Id.* at 3-4.

[44] *Id.* at 5.

"incorporate[d] by reference" a reply memorandum that was filed in the *Turkey Point, Vogtle,* and *Watts Bar* cases.[45]

1. *Motion to Strike and Motion for Leave to File Opposition to Motion to Strike*

FirstEnergy and the NRC Staff moved to strike portions of Intervenors' reply,[46] and Intervenors responded with an opposition to the motion to strike[47] and subsequently filed for leave to file that opposition.[48]

FirstEnergy opposes Intervenors' motion for leave to file their opposition to the motions to strike, pointing out that Intervenors' motion was filed 3 days late, on October 6, 2011.[49] The motions to strike were filed on September 23, 2011, and Intervenors' opposition was due 10 days later, i.e., October 3, pursuant to 10 C.F.R. § 2.323(c). Intervenors explain they filed late because their counsel "has been overwhelmed with work" and inadvertently confused federal court procedural rules with this agency's.[50] This excuse is wholly inadequate. The Commission has repeatedly stated that failure to read carefully NRC regulations does *not* constitute good cause for accepting late-filed petitions.[51] Nor do parties' other professional obligations relieve them of their obligations to meet regulatory deadlines.[52] Further, this Board has previously cautioned Intervenors "to prepare their pleadings well in advance of any deadlines."[53] Because Intervenors have not

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[45] *Id.* at 2. Intervenors state:

> The Reply Memorandum was prepared by the attorneys who represent the intervenors or petitioners in those cases: Diane Curran (counsel for the intervenor in the Diablo Canyon license renewal proceeding and Watts Bar operating license proceeding), Mindy Goldstein (counsel for some of the intervenors in the Vogtle and Vogtle Turkey Point [sic] COL proceedings), and Jason Totoui (counsel for some of the intervenors in the Turkey Point COL proceeding).

Id. at 2 n.1.

[46] FirstEnergy Motion to Strike; NRC Staff Corrected Motion to Strike.

[47] Intervenors Opposition to Motions to Strike.

[48] Intervenors Refiled Motion for Leave to Oppose Motions to Strike.

[49] FirstEnergy Opposition to Intervenors Motion for Leave at 2.

[50] Intervenors Refiled Motion for Leave to Oppose Motions to Strike at 1-2.

[51] *See, e.g., Florida Power & Light Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-06-21, 64 NRC 30, 33 (2006).

[52] *See Tennessee Valley Authority* (Bellefonte Nuclear Plants, Units 1 and 2), CLI-10-26, 73 NRC 474, 476 (2010) (". . . Petitioners' argument that their counsel was busy working on other legal matters disregards our longstanding policy that 'the fact that a party may have . . . other obligations . . . does not relieve that party of its hearing obligations.'" (quoting *Statement of Policy on Conduct of Licensing Proceedings,* CLI-81-8, 13 NRC 452, 454 (1981))).

[53] LBP-11-13, 73 NRC at 545.

shown good cause for filing their opposition to the motions to strike 3 days late, their motion for leave to file that opposition is denied.

FirstEnergy and the NRC Staff move to strike portions of Intervenors' reply, arguing those portions contain new arguments beyond the scope of the original pleading.[54] The NRC Staff states that the reply "simply seeks to substitute [the] original contention with a contention that at least purports to address FirstEnergy's LRA and ER."[55] For example, because Intervenor's original contention never mentions FirstEnergy's LRA, ER, or SAMA analysis, FirstEnergy and the NRC Staff object to the claims in the reply about the adequacy of the SAMA analysis and about the results of keyword searching the LRA and ER.[56] Because the original contention does not provide any Davis-Besse specific arguments, FirstEnergy and the NRC Staff object also to information in the reply about the possibility of earthquakes, floods, seiches on Lake Erie, or other events that could result in a long-term station blackout at Davis-Besse.[57] FirstEnergy and the NRC Staff provide tables in which they identify the portions of the reply that they claim go beyond the scope of the original contention.[58]

The proper scope of a reply brief is limited to the scope of the arguments set forth in the original motion or petition.[59] The reply must "focus narrowly on the legal or factual arguments first presented in the original [motion or] petition or raised in the answers to it."[60] A reply cannot be used to present entirely new facts or arguments in an attempt to "reinvigorate thinly supported contentions."[61] If a contention as originally pled did not satisfy 10 C.F.R. § 2.309(f)(1), a reply cannot remediate the deficiency by introducing, for the first time, references to a genuine dispute with the license application at issue.[62]

Intervenors' original contention, which consists of a two-sentence introductory paragraph seeking to "incorporate by reference" an attached contention that was

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[54] FirstEnergy Motion to Strike at 2; NRC Staff Corrected Motion to Strike at 1.

[55] NRC Staff Corrected Motion to Strike at 6.

[56] FirstEnergy Motion to Strike at 5-6 (citing Reply at 4-7); NRC Staff Corrected Motion to Strike at 7 (citing Reply at 4).

[57] FirstEnergy Motion to Strike at 6 (citing Reply at 5-6); NRC Staff Corrected Motion to Strike at 5, 7 (citing Reply at 5-6).

[58] FirstEnergy Motion to Strike at 7-8; NRC Staff Corrected Motion to Strike at 4-6.

[59] *See Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006).

[60] *Id.*

[61] *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-32, 60 NRC 223, 224 (2004).

[62] *Cf. Palisades,* CLI-06-17, 63 NRC at 732 ("While a petitioner need not introduce at the contention phase every document on which it will rely in a hearing, if the contention as originally pled did not cite adequate documentary support, a petitioner cannot remediate the deficiency by introducing in the reply documents that were available to it during the time frame for initially filing contentions.").

filed in an unrelated proceeding,[63] lacked any reference to the Davis-Besse LRA or ER. Intervenors cannot mend their original contention by providing those references in their reply brief. Because the regulations do not allow other parties an automatic right to respond to reply briefs,[64] Intervenors' "wholesale substitution of Seabrook and NextEra for Davis-Besse and FirstEnergy" in their reply brief, in the words of the NRC Staff, "fundamentally undermines the fairness of the proceeding for all the parties."[65]

Therefore, for all the reasons above, the Board grants FirstEnergy and the NRC Staff's motions to strike.

2. Ruling on Motion to Admit Proposed New Contention

We conclude that Intervenors' motion and proposed new contention are hopelessly flawed, as they fail to meet the requirements of NRC regulations. First, the motion must be denied for failure to satisfy the requirements of 10 C.F.R. § 2.323(b) as well as the Initial Scheduling Order in this case. Section 2.323(b) reads, in pertinent part:

> A motion must be rejected if it does not include a certification by the attorney or representative of the moving party that the movant has made a sincere effort to contact other parties in the proceeding and resolve the issue(s) raised in the motion, and that the movant's efforts to resolve the issue(s) have been unsuccessful.[66]

This regulatory requirement was stressed by this Board in our Initial Scheduling Order, where we stated that "motions will be summarily rejected if they do not include the certification specified in 10 C.F.R. § 2.323(b)."[67]

As noted by FirstEnergy, Intervenors "made no attempt to contact FirstEnergy or its counsel and resolve the issues raised in the Motion and New Contention."[68] Indeed, Intervenors' motion to admit a new contention does not contain the certification required by section 2.323(b). The motion can therefore be rejected on this ground alone.

Next, the proposed new contention is inadmissible because Intervenors have not satisfied the requirements of 10 C.F.R. § 2.309(f)(1), which provides, in pertinent part:

For each contention, the request or petition must:

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[63] Proposed New Contention at 1.

[64] *See* 10 C.F.R. §§ 2.309(h)(3), 2.323(c).

[65] NRC Staff Corrected Motion to Strike at 7 (citation omitted).

[66] 10 C.F.R. § 2.323(b).

[67] Initial Scheduling Order (June 15, 2011) at 18 (unpublished).

[68] FirstEnergy Opposition at 5.

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;
>
> (ii) Provide a brief explanation of the basis for the contention;
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> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
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> (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
>
> (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing . . . ; [and]
>
> (vi) . . . [Demonstrate] 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 . . . or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief . . . .[69]

The proposed new contention as presented in this case falls far, far short of these pleading standards. The proposed new contention does not demonstrate that the issue raised is within the scope of the proceeding as required by paragraph (iii) nor that it is material to the findings the NRC must make to support the license renewal as required by paragraph (iv) because Intervenors do not show any connection between the Near-Term Task Force Report analysis and the Davis-Besse application.

Intervenors have merely slapped a two-sentence introduction onto a pleading filed in an unrelated license renewal proceeding. Although this pleading strategy is not necessarily fatal, it is insufficient in this case for us to admit this contention. The Atomic Safety and Licensing Appeal Board[70] has held that "[a] contention cannot be automatically discarded by a hearing board simply because it repeats a contention advanced in a different proceeding."[71] However,

> a carry-over contention must be subjected to especially careful scrutiny by the board at the prehearing stage. The board must satisfy itself not only that the contention applies to the facility at bar but, as well, that there has been sufficient foundation assigned for it to warrant its further exploration.[72]

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[69] 10 C.F.R. § 2.309(f)(1)(i)-(vi).

[70] While the Atomic Safety and Licensing Appeal Panel is no longer in existence, the decisions of its Appeals Boards continue to be binding on us to the degree they concern a regulation or regulatory matter that has not been revised or otherwise materially altered. *See Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-11, 40 NRC 55, 59 n.2 (1994).

[71] *Duquesne Light Co.* (Beaver Valley Power Station, Unit 1), ALAB-109, 6 AEC 243, 246 (1973).

[72] *Id.*

Intervenors have made no effort to demonstrate how the contention applies to the Davis-Besse facility. Indeed, the proposed new contention makes no reference to the Davis-Besse license renewal application or environmental report. Rather, it challenges the Seabrook ER and apparently the Seabrook DSEIS.[73] Similarly, the affidavit attached to the motion[74] makes no reference to the Davis-Besse LRA or ER.

It appears that Intervenors would have this Board dig through the Davis-Besse LRA and ER to determine how the Seabrook contention relates specifically to the Davis-Besse facility. However, as the Commission has stated, "it is not up to the boards to search through pleadings or other materials to uncover arguments and support never advanced by [intervenors]."[75] Therefore, because Intervenors' proposed new contention does not refer to FirstEnergy's ER or the NRC Staff's DSEIS for Davis-Besse (which is currently projected to be released in January 2012),[76] it is inadmissible. After "careful scrutiny," we conclude that Intervenors have provided us with no information to "warrant [the contention's] further exploration."[77]

In addition, Intervenors cite no case law or Commission regulation that requires an applicant to update its ER.[78] Further, nothing in NEPA, which applies to "agencies of the Federal Government," can be read to require an applicant to update its environmental report.[79]

However, Intervenors are correct when they state that the NRC Staff must

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[73] While Intervenors rely entirely on the Seabrook contention, it is worth noting that the Board in the *Seabrook* proceeding concluded that this contention was inadmissible. *See NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 604, 607 (2011).

[74] Motion to Admit, Attach., Declaration of Dr. Arjun Makhijani Regarding Safety and Environmental Significance of NRC Task Force Report Regarding Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Aug. 8, 2011).

[75] *USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006).

[76] Letter from Brian G. Harris, Counsel for NRC Staff, to Administrative Judges William J. Froehlich, Nicholas G. Trikouros, and Dr. William E. Kastenberg, Atomic Safety and Licensing Board Panel (Nov. 1, 2011) at 1.

[77] *Beaver Valley,* ALAB-109, 6 AEC at 246.

[78] As the Licensing Board in the *Turkey Point* proceeding stated:

> [T]he NRC Staff, pursuant to its obligation to prepare an adequate EIS, is empowered to issue requests for additional information relevant to an applicant's ER (*see* 10 C.F.R. § 51.41), and an applicant may update an ER if relevant new and significant information becomes available. The salient point, however, is that an applicant is under no regulatory or statutory obligation to effect such an update.

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 681 n.9 (2011) (some citations omitted).

[79] *See* 42 U.S.C. § 4332; *accord Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 665 (2011).

include new and significant information in the DSEIS.[80] NRC regulations also explicitly allow for petitioners to amend their contentions or file new contentions if the DSEIS "differ[s] significantly from the data or conclusions in the applicant's documents."[81] As noted by another Licensing Board, this provides "a remedy [for Intervenors] to the extent they believe the Staff's draft or final EIS fails to account for new and significant information arising from the Fukushima Dai-ichi events."[82]

For the reasons stated above, the Board denies the motion to admit the proposed new contention.

C. Motion to Supplement Basis

In their motion to supplement the basis of their contention,[83] Intervenors requested this Board "to consider the recent issuance of a directive by [the Commission] to the NRC Staff, which requires Staff to 'strive to complete and implement the lessons learned from the Fukushima accident within 5 years — by 2016.'"[84] Intervenors argue that by publishing the Commission Directive, "the Commission makes clear that it believes the lessons learned from the Fukushima accident have safety and environmental significance."[85] NRC Staff and FirstEnergy argue that the motion is inadequate because it does not provide sufficient information to make the underlying contention admissible.[86] NRC Staff argues further that the motion is procedurally defective for failing to discuss the requirements for late, new, or amended filings.[87]

Intervenors' motion is only two pages and does not tell us how exactly this supposed belief of the Commission strengthens Intervenors' contention. We must presume, given the title Intervenors have given this motion, that Intervenors are claiming that this new information bolsters the *basis* for the contention. However, as noted above, "provid[ing] a brief explanation of the basis for the contention"[88] is but one of the six requirements for establishing that a contention

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[80] *See* 10 C.F.R. § 51.72(a).

[81] *See* 10 C.F.R. § 2.309(f)(2).

[82] *Turkey Point,* LBP-11-33, 74 NRC at 682 n.12.

[83] This motion was accompanied by the required section 2.323(b) consultation certification.

[84] Motion to Supplement at 1 (quoting SRM/SECY-11-0124, Memorandum from R. W. Borchardt, Executive Director for Operations, to Annette L. Vietti-Cook, Secretary, re: Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report (Oct. 18, 2011)).

[85] *Id.* at 2.

[86] NRC Opposition to Motion to Supplement at 5-8, FirstEnergy Opposition to Motion to Supplement at 4-7.

[87] NRC Opposition to Motion to Supplement at 4.

[88] 10 C.F.R. § 2.309(f)(1)(ii).

is admissible.[89] The motion to supplement does not explain how it cures any of the defects noted above, where we most notably concluded that Intervenors failed to show that a genuine dispute existed between the parties, as required by 10 C.F.R. § 2.309(f)(1)(vi). In other words, we identified grounds for dismissing the contention that were totally separate from the "basis" requirement, and as such, supplementing the basis alone cannot cure the failures that we addressed.[90]

Intervenors also claim that the Commission Directive undermines the decision of another Licensing Board that recently found a similar contention inadmissible because it was premature.[91] While NRC Staff does not appear to address this issue, FirstEnergy argues that the Commission Directive does *not* undermine that Board's decision.[92] Intervenors do not make clear how the Commission Directive undermines that decision, or how such undermining bears on the *Davis-Besse* proceeding now before us. Indeed, while that Board found the contention inadmissible because it was premature, we conclude that the contention before us is inadmissible for the different reasons explained above. Even if the Commission Directive *did* undermine the *Bell Bend* Board's decision (a proposition on which we make no comment), it would not undermine our decision, as we have made no ruling on the issue of prematurity.

Although we grant the motion to supplement, it does not render the proposed new contention admissible.

III. ORDER

For the reasons stated above:

A. The Board will not consider the rulemaking petitions filed August 11, 2011, or September 15, 2011.

B. Intervenors' August 11, 2011 motion to admit a proposed new contention is *denied.*

C. NRC Staff's September 23, 2011 motion to strike is *granted.*

D. FirstEnergy's September 23, 2011 motion to strike is *granted.*

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[89] We note also that the basis requirement is relatively straightforward. As one Board has noted: "Rarely should this require more than a sentence or two." *U.S. Department of Energy* (High-Level Waste Repository), LBP-08-10, 67 NRC 450, 455 (2008).

[90] NRC Staff also discusses the requirements under 10 C.F.R. § 2.309(c)(1) for nontimely contentions and under 10 C.F.R. § 2.309(f)(2) for new and amended contentions. NRC Opposition to Motion to Supplement at 4. We need not reach this issue because we find that the contention, even as amended by the motion to supplement, would not be admissible.

[91] Motion to Supplement at 2 (citing *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591, 601-02 (2011)).

[92] FirstEnergy Opposition to Motion to Supplement at 8-10.

E. Intervenors' October 12, 2011 motion for leave to oppose the motions to strike *nunc pro tunc* is *denied.*

F. Intervenors' October 28, 2011 motion to supplement is *granted.*

It is so ORDERED.

THE ATOMIC SAFETY AND LICENSING BOARD[93]

William J. Froehlich, Chairman
ADMINISTRATIVE JUDGE

Nicholas G. Trikouros
ADMINISTRATIVE JUDGE

Dr. William E. Kastenberg
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 23, 2011

[93] A copy of this Memorandum and Order was sent this date by the NRC's E-Filing System to: (1) the *pro se* representative for Beyond Nuclear; (2) counsel for Citizens Environment Alliance of Southwestern Ontario, Don't Waste Michigan, and the Green Party of Ohio; (3) counsel for FirstEnergy; and (4) counsel for the NRC Staff.

Cite as 74 NRC 701 (2011) **LBP-11-35**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ann Marshall Young, Chair
Dr. Paul B. Abramson
Dr. Richard F. Cole

In the Matter of **Docket No. 50-293-LR**
(ASLBP No. 06-848-02-LR)

ENTERGY NUCLEAR GENERATION COMPANY and ENTERGY NUCLEAR OPERATIONS, INC.
(Pilgrim Nuclear Power Station) **November 28, 2011**

This proceeding concerns the application of Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc. for renewal of the operating license for its Pilgrim Nuclear Power Station, located in Plymouth, Massachusetts. Between the time when the Commission remanded a limited issue to the Board and when the Board disposed of the remanded issue, the Commonwealth of Massachusetts filed (1) a motion to hold this proceeding in abeyance, (2) a motion to admit a proposed new contention based on information about the events at the Fukushima Dai-ichi Nuclear Power Plant in Japan, (3) a request to waive agency regulations providing that spent fuel pool issues are outside the scope of license renewal proceedings, and (4) a motion to supplement the basis of its proposed new contention. A majority of the Licensing Board grants the motion to supplement and denies the abeyance motion, the waiver request, and the motion to admit the proposed new contention.

ABEYANCE OF PROCEEDING

The Majority denies petitioner's request to hold the licensing proceeding in abeyance until the Commission resolves petitioner's request to suspend the proceeding pending evaluation of the events at the Fukushima Dai-ichi Nuclear Power Plant because the Commission has denied the suspension request.

WAIVER OF RULE

Absent demonstration that the petitioner's alleged special circumstances are unique to the facility rather than common to a large class of facilities, the request for waiver of regulations excluding spent fuel pool issues from license renewal proceedings is denied. There are more than 20 Boiling Water Reactor Mark-I plants which share the characteristics of the facility at issue, and each and every nuclear power plant in the country has a spent fuel pool.

REOPENING

Having indicated no linkage whatsoever between the events at the Fukushima Dai-ichi Plant and the potential for a beyond-design-basis duration of station blackout at the applicant's nuclear plant, petitioner proffers no new information relevant to the subject plant regarding station blackout or mitigation measures to prevent or ameliorate its effects, and the events therefore cannot form the basis for an assertion of timeliness for the purposes of 10 C.F.R. § 2.326.

REOPENING

Because the issue of whether the proposed alternative method for estimating a macroscopic frequency of occurrence of a severe offsite radiological release should have been used in the SAMA analysis could have been raised at the time of the submittal of the original license renewal application, it is not timely now.

REOPENING

Because petitioner indicates neither any particular positive impact from severe accident mitigation alternative implementation nor any specific negative environmental impact from failure to do so, its contention can hardly be said to paint the required "seriously different picture of the environmental landscape" that would satisfy 10 C.F.R. § 2.326(a)(2).

REOPENING

To show under 10 C.F.R. § 2.326(a)(3) that a materially different result in the outcome of the severe accident mitigation alternatives analysis would be or would have been likely had the newly proffered evidence been considered initially, the petitioner would have at least had to provide some information indicating how much the mean consequences of the severe accident scenarios could reasonably be expected to change as a result of considering the proffered information, together with at least some minimal information as to the cost of implementation of other severe accident mitigation alternatives the petitioner believes might become cost-effective.

REOPENING

Petitioner's declaration fails to specifically explain, to the level required by 10 C.F.R. § 2.326(b), (1) why a materially different result would have been likely had the information presently available from the Fukushima accident been considered *ab initio* in the severe accident mitigation alternatives analysis or (2) why that information presents a significant safety or environmental issue. The declaration sets out no factual or technical basis; it merely represents a statement of belief.

CONTENTIONS, LATE-FILED

The contention fails to satisfy the good cause requirements of 10 C.F.R. § 2.309(c)(i) because its foundational argument does not rest upon new and materially different information and could (and should) have been filed at the outset of this proceeding. And section 2.309(c)(vii) weighs heavily against granting admission of the contention because the addition of a hearing on its subject matter will unduly broaden the issues presently being considered and undoubtedly materially delay this proceeding.

CONTENTIONS, ADMISSIBILITY

The proposed new contention fails to satisfy the requirements of 10 C.F.R § 2.309(f)(1), and is therefore inadmissible, because neither it nor the supporting declaration has indicated with any specificity how the severe accident mitigation alternatives analysis results could be affected. Further, neither points to nor references any specific portion of the application that is disputed, simply asserting that the severe accident mitigation alternatives results might be different.

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MEMORANDUM AND ORDER

(Denying Commonwealth of Massachusetts' Request for Stay, Motion for Waiver, and Request for Hearing on a New Contention Relating to Fukushima Accident)

In this Order, we address remaining matters before us raised by the Commonwealth of Massachusetts (Commonwealth) in the proceeding concerning the application by Entergy Nuclear Generation Company and Entergy Nuclear Operations, Inc. (collectively, Entergy) for renewal of the operating license for the Pilgrim Nuclear Power Station (Pilgrim) for an additional 20-year period beyond its current operating license expiration date of June 8, 2012.[1] These matters are (a) a motion amounting to a request for a stay of this proceeding (Stay Request);[2] (b) a motion to admit (Motion to Admit) a new contention challenging the Entergy SAMA analysis because of asserted new information regarding both Spent Fuel Pool (SFP) accidents and severe accident probabilities based upon the events at Fukushima (Fukushima Contention);[3] (c) a request for a waiver of the provisions of our regulations providing that SFP issues are outside the scope of a license renewal proceeding such as this (Request for Waiver);[4] and (d) a motion to supplement the bases of its proposed contention to address the NRC's Near-Term Task Force Report on lessons learned from Fukushima (Motion to Supplement).[5]

For reasons discussed below:

a. we deny the Stay Request;

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[1] *See* 71 Fed. Reg. 15,222, 15,222 (Mar. 27, 2006).

[2] Commonwealth of Massachusetts Motion to Hold Licensing Decision in Abeyance Pending Commission Decision Whether to Suspend the Pilgrim Proceeding to Review the Lessons of the Fukushima Accident (May 2, 2011) [hereinafter Stay Request].

[3] Commonwealth of Massachusetts' Motion to Admit Contention and, if Necessary, to Reopen Record Regarding New and Significant Information Revealed by Fukushima Accident (June 2, 2011) [hereinafter Motion to Admit and Reopen]; Commonwealth of Massachusetts' Contention Regarding New and Significant Information Revealed by the Fukushima Radiological Accident (June 2, 2011) [hereinafter Fukushima Contention].

[4] Commonwealth of Massachusetts' Petition for Waiver of 10 C.F.R. Part 51 Subpart A, Appendix B or, in the Alternative, Petition for Rulemaking to Rescind Regulations Excluding Consideration of Spent Fuel Storage Impacts from License Renewal Environmental Review (June 2, 2011) [hereinafter Waiver Petition].

[5] Commonwealth of Massachusetts Motion to Supplement Bases to Commonwealth Contention to Address NRC Task Force Report on Lessons Learned from the Radiological Accident at Fukushima (Aug. 11, 2011) at 1-2 (citing Dr. Charles Miller et al., Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insight from the Fukushima Dai-ichi Accident (July 12, 2011) (ADAMS Accession No. ML111861807) [hereinafter Near-Term Task Force Report]) [hereinafter Motion to Supplement].

b. we deny the Waiver Request;

c. we grant the Motion to Supplement, considering the information presented therewith for its value to this matter; and

d. we deny the Motion to Admit, finding the Commonwealth has failed to satisfy the requirements for reopening under 10 C.F.R. § 2.326, the standards for untimely contentions under 10 C.F.R. § 2.309(c), and the contention admissibility criteria of 10 C.F.R. § 2.309(f)(1).

I. PERTINENT BACKGROUND

Entergy's application has been opposed by Pilgrim Watch[6] and the Commonwealth.[7] We originally closed these proceedings by order issued June 4, 2008;[8] however, on March 26, 2010, the Commission reversed in part the Board majority's grant of summary disposition as to an admitted contention filed by Pilgrim Watch challenging Entergy's analysis of severe accident mitigation alternatives (SAMAs).[9] We ruled in favor of Entergy as to the remanded matter by order dated July 19, 2011 (hereinafter, our Remanded Issue Order).[10]

On May 2, 2011, while the remand was pending, the Commonwealth filed its Stay Request, requesting a stay of these proceedings until the Commission has completed its studies of, and released a related plan for action regarding, the Fukushima events.[11] On June 2, 2011, the Commonwealth submitted to us its Waiver Request[12] and simultaneously filed its Motion to Admit[13] respecting its Fukushima Contention.[14] On August 11, 2011, the Commonwealth filed its Motion to Supplement, asking to supplement its bases for its new contention based upon information it garnered from the NRC's Near-Term Task Force

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[6] Request for Hearing and Petition to Intervene by Pilgrim Watch (May 25, 2006).

[7] Massachusetts Attorney General's Request for a Hearing and Petition for Leave to Intervene wit[h] Respect to Entergy Nuclear Operations Inc.'s Application for Renewal of the Pilgrim Nuclear Power Plant Operating License and Petition for Backfit Order Requiring New Design Features to Protect Against Spent Fuel Pool Accidents (May 30, 2006).

[8] LBP-08-22, 68 NRC 590, 596 (2008); Board Memorandum and Order (Ruling on Pilgrim Watch Motions Regarding Testimony and Proposed Additional Evidence Relating to Pilgrim Watch Contention 1) (June 4, 2008) at 3-4 (unpublished).

[9] *See* CLI-10-11, 71 NRC 287, 289-90 (2010).

[10] LBP-11-18, 74 NRC 29, 31 (2011).

[11] *See* Stay Request at 1.

[12] Waiver Request at 1.

[13] Motion to Admit at 1.

[14] Fukushima Contention.

Report.[15] Entergy and Staff filed answers and oppositions to these petitions and motions,[16] and the Commonwealth filed replies and motions for leave to reply.[17] Entergy and the NRC Staff filed oppositions to the Commonwealth's motion for

[15] Motion to Supplement at 1-2.

[16] Entergy's Answer Opposing Commonwealth's Motion to Hold Licensing Decision in Abeyance (May 12, 2011) [hereinafter Entergy Opposition to Stay Request]; NRC Staff's Answer in Opposition to Commonwealth of Massachusetts Motion to Hold Licensing Decision in Abeyance Pending Commission Decision Whether to Suspend the Pilgrim Proceeding to Review the Lessons of the Fukushima Accident (May 12, 2011) [hereinafter NRC Staff Opposition to Stay Request]; Entergy's Answer Opposing Commonwealth Contention and Petition for Waiver Regarding New and Significant Information Based on Fukushima (June 27, 2011) [hereinafter Entergy Answer to Waiver Petition and Fukushima Contention]; NRC Staff's Response to the Commonwealth of Massachusetts' Petition for Waiver of 10 C.F.R. Part 51 Subpart A, Appendix B or, in the Alternative, Petition for Rulemaking (June 27, 2011) [hereinafter NRC Staff Answer to Waiver Petition]; NRC Staff's Response to Commonwealth of Massachusetts' Motion to Admit Contention and, if Necessary, Re-Open Record Regarding New and Significant Information Revealed by Fukushima Accident (June 27, 2011) [hereinafter NRC Staff Opposition to Fukushima Contention]; Entergy's Answer Opposing Commonwealth Motion to Supplement Bases to Commonwealth Contention to Address NRC Task Force Report on Lessons Learned from Fukushima (Sept. 6, 2011); Letter from Paul A. Gaukler, Counsel for Entergy, to Office of the Secretary, NRC (Sept. 19, 2011) (explaining that Entergy refiled its answer to the Commonwealth's Motion to Supplement to correct only the caption); Entergy's Answer Opposing Commonwealth Motion to Supplement Bases to Commonwealth Contention to Address NRC Task Force Report on Lessons Learned from Fukushima (Sept. 19, 2011) [hereinafter Entergy Opposition to Motion to Supplement]; NRC Staff's Response to Commonwealth of Massachusetts' Motion to Supplement Bases to Proposed Contention to Address NRC Task Force Report on Lessons Learned from Fukushima (Sept. 6, 2011) [hereinafter NRC Staff Opposition to Motion to Supplement]. The NRC Staff had moved that we extend the time for filing responses to the Commonwealth's Motion to Supplement, NRC Staff's Unopposed Motion for an Extension to September 6, 2011, to File a Response to the Commonwealth of Massachusetts' Motion (Aug. 16, 2011), and we granted its extension request, Board Order (Granting NRC Staff's Unopposed Motion for Extension) at 1-2 (Aug. 17, 2011) (unpublished).

[17] Commonwealth of Massachusetts Motion to Reply to the Answers of the NRC Staff and Entergy in Opposition to the Commonwealth of Massachusetts Motion to Hold Licensing Decision in Abeyance Pending Commission Decision Whether to Suspend the Pilgrim Proceeding to Review the Lessons of the Fukushima Accident (May 19, 2011); Commonwealth of Massachusetts Reply to NRC Staff and Entergy Oppositions to Commonwealth Motion to Hold Licensing Decision in Abeyance Pending Commission Decision Whether to Suspend the Pilgrim Proceeding to Review the Lessons of the Fukushima Accident (May 19, 2011) [hereinafter Reply for Stay Request]; Commonwealth of Massachusetts Reply to the Responses of the NRC Staff and Entergy to Commonwealth Waiver Petition and Motion to Admit Contention or in the Alternative for Rulemaking (July 5, 2011) [hereinafter Reply for Waiver Petition and Fukushima Contention]; Commonwealth of Massachusetts Reply to NRC Staff and Entergy Oppositions to Commonwealth Motion to Supplement Bases to Contention on NRC Task Force Report on Lessons Learned from Fukushima (Sept. 13, 2011); Commonwealth of Massachusetts Motion to Reply to NRC Staff and Entergy Oppositions to Commonwealth Motion

(Continued)

leave to reply regarding the Stay Request,[18] and Entergy filed an opposition to the Commonwealth's motion for leave to reply regarding the Motion to Supplement.[19] Entergy moved also to strike portions of the Commonwealth's reply regarding the Waiver Petition and the Fukushima Contention.[20] The Commonwealth filed an opposition to Entergy's motion to strike.[21]

In addition, Pilgrim Watch filed requests for hearing on proposed new contentions while the remand was pending. We found inadmissible the three proposed new contentions that Pilgrim Watch filed prior to the accident at Fukushima by order dated August 11, 2011 (hereinafter, our Pre-Fukushima Order)[22] and the two proposed new contentions that Pilgrim Watch filed after, and respecting information it garnered from, the accident at Fukushima by order dated September 8, 2011 (hereinafter, our Pilgrim Watch Post-Fukushima Order).[23]

During the pendency of our issuance of this ruling on the Commonwealth's pleadings respecting the events at Fukushima, Pilgrim Watch filed yet another proposed new contention.[24]

The history of this proceeding is discussed in greater detail in our Remanded Issue Order, in our Pre-Fukushima Order, and in our Pilgrim Watch Post-Fukushima Order.

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to Supplement Bases to Its Contention (Sept. 13, 2011); Commonwealth of Massachusetts Amended Motion to Reply to NRC Staff and Entergy Opposition to Commonwealth Motion to Supplement Bases to Its Contention (Sept. 15, 2011).

[18] Entergy's Answer Opposing Commonwealth of Massachusetts Motion to Permit Unauthorized Reply to NRC Staff and Entergy Answers Opposing Motion to Hold Licensing Decision in Abeyance (May 31, 2011); NRC Staff's Answer in Opposition to Commonwealth of Massachusetts' Motion to File Reply to Staff Response to Motion to Hold Licensing Board Decision in Abeyance Pending the Commission's Decision on Motion to Suspend Proceedings (May 31, 2011).

[19] Entergy Answer Opposing Commonwealth of Massachusetts Motion to Reply to NRC Staff and Entergy Oppositions to Commonwealth Motion to Supplement Bases of Its Contention (Sept. 23, 2011).

[20] Entergy Motion to Strike Portions of the Commonwealth of Massachusetts Reply to Entergy and the NRC Staff Answers Opposing Waiver Petition and Motion to Admit Contention (July 15, 2011).

[21] Commonwealth of Massachusetts Answer in Opposition to Entergy's Motion to Strike Portions of Massachusetts Reply (July 21, 2011). We have considered all the information set out in the Commonwealth's reply for the value it contributed, and therefore need not address either Entergy's motion to strike or the opposition thereto from the Commonwealth.

[22] LBP-11-20, 74 NRC 65, 68, 69 (2011) [hereinafter Pre-Fukushima Order].

[23] LBP-11-23, 74 NRC 287, 291 (2011) [hereinafter Pilgrim Watch Post-Fukushima Order].

[24] Pilgrim Watch Request for Hearing on a New Contention Regarding Inadequacy of Environmental Report, Post-Fukushima (Nov. 18, 2011).

II. ANALYSIS

A. Stay Request

The Commonwealth requests that

> the Atomic Safety and Licensing Board (Pilgrim ASLB) hold its decision in abeyance whether to relicense the Pilgrim Nuclear Power Plant for an additional twenty (20) years until the Nuclear Regulatory Commission (NRC or Commission) issues a decision on the pending petition to suspend the Pilgrim relicensing proceeding to consider new and significant information on the lessons of the accident at the Fukushima Daiichi Nuclear Power Station.[25]

The Commonwealth states that the grant of the stay would be consistent with NRC customary practice to facilitate orderly judicial review, and states the reasons for its request as follows:

> To allow for an orderly process, and in view of the Commission's own stated intent to entertain further filings on the license suspension and related issues, the Commonwealth is requesting the Pilgrim ASLB to grant a housekeeping or anticipatory stay to allow the Commission to decide these issues before the Pilgrim ASLB may render a final licensing decision.[26]

The Commonwealth explains that the request to suspend the Pilgrim relicensing proceeding is made to permit "further consideration of new and significant information arising from the Fukushima accident regarding the risks associated with the spent fuel pool at Pilgrim and related issues."[27] The Commonwealth also requests "an additional 30 days to submit expert testimony with initial findings in support [of] this request and for related relief."[28]

In addition, the Commonwealth joined in the petitions before the Commission,[29] wherein petitioners requested:

- Suspension of "all decisions regarding the issuance of construction permits, new reactor licenses, [Combined Licenses (COLs)], [Early Site Permits (ESPs)],

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[25] Stay Request at 1.
[26] *Id.* at 2.
[27] *Id.*
[28] *Id.*
[29] Commonwealth of Massachusetts Response to Commission Order Regarding Lessons Learned from the Fukushima Daiichi Nuclear Power Station Accident, Joinder in Petition to Suspend the License Renewal Proceeding for the Pilgrim Nuclear Power Plant, and Request for Additional Relief (May 2, 2011) at 3.

license renewals, or standardized design certification pending completion by the NRC's Task Force . . . of its investigation of the near-term and long-term lessons of the Fukushima accident and the issuance of any proposed regulatory decisions and/or environmental analyses of those issues."

- Suspension of all proceedings — specifically, all hearings and opportunities for public comment — on reactor or spent fuel pool issues identified for investigation by the Task Force, including external event issues, station blackout, severe accident measures, implementation of 10 C.F.R. § 50.54(hh)(2) requirements on response to fire or explosions, and emergency preparedness.
- Suspension of proceedings in connection with any other issues identified by the Task Force pending completion of investigation of those issues and issuance of any proposed regulatory decisions and/or environmental analyses.[30]

In CLI-11-5, the Commission denied those petitions insofar as they requested cessation of licensing activities,[31] finding:

> [F]or pending license renewal applications, where the period of extended operation, provided renewed licenses are issued, will not begin for, at a minimum, nearly a year, and, in the majority of cases, for several years. . . . there is no imminent threat to public health and safety that requires suspension of any of these proceedings or the associated licensing decisions now.[32]

Going on, the Commission summarized as follows:

> In sum, we find no imminent risk to public health and safety if we allow our regulatory processes to continue. Instead of finding obstacles to fair and efficient decisionmaking, we see benefits from allowing our processes to continue so that issues unrelated to the Task Force's review can be resolved. We have well-established processes for imposing any new requirements necessary to protect public health and safety and the common defense and security. Moving forward with our decisions and proceedings will have no effect on the NRC's ability to

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[30] *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 159 (2011) (citations omitted); *accord* Emergency Petition to Suspend All Pending Reactor Licensing Decisions and Related Rulemaking Decisions Pending Investigation of Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Apr. 14, 2011) at 1-2. The Commission noted that the requested relief also included "analysis of whether the events at Fukushima constitute 'new and significant information' under NEPA; safety analysis of the regulatory implications of the events at Fukushima; and establishment of a schedule for raising new issues in pending licensing proceedings." *Callaway,* CLI-11-5, 74 NRC at 151.

[31] *Id.* at 159.

[32] *Id.* at 163.

implement necessary rule or policy changes that might come out of our review of the Fukushima Daiichi events.[33]

And, specifically addressing the Commonwealth's request that the Commission suspend this proceeding, the Commission held:

> The Commonwealth requests that we suspend the *Pilgrim* license renewal proceeding pending the Commission's consideration of "new and significant" information related to spent fuel pools, related risks, and regulatory requirements; and "[g]rant the Commonwealth and the public an additional reasonable time following completion of the release of the NRC's own findings on the lessons of Fukushima to comment on them and propose licensing or regulatory changes as appropriate." Consistent with our decisions on the requests for relief contained in the primary Petition, above, we deny the Commonwealth of Massachusetts's similar requests for relief. The Commonwealth's petition, like the primary Petition, fails to satisfy our three-part *Private Fuel Storage* test and therefore does not support suspending the *Pilgrim* proceeding pending evaluation of information obtained as a result of the events in Japan.[34]

We find the Commission's ruling to be dispositive of, and therefore DENY, the Commonwealth's Stay Request.

B. Waiver Request

The Commonwealth requests:

> a waiver of 10 C.F.R. § 51.71(d) and 10 C.F.R. Part 51 Subpart A, Appendix B (collectively "spent fuel pool exclusion regulations") to the extent that these regulations generically classify the environmental impacts of high density pool storage of spent fuel as insignificant and thereby permit their exclusion from consideration in environmental impact statements (EISs) for renewal of nuclear power plant operating licenses.[35]

The Commonwealth argues that:

> Waiver of the spent fuel pool exclusion regulations is necessary in order to allow

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[33] *Id.* at 166.

[34] *Id.* at 171-72 (quoting Commonwealth of Massachusetts Response to Commission Order Regarding Lessons Learned from the Fukushima Daiichi Nuclear Power Station Accident, Joinder in Petition to Suspend the License Renewal Proceeding for the Pilgrim Nuclear Power Plant, and Request for Additional Relief (May 2, 2011) at 13-14 and referring to *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 380 (2001)).

[35] Waiver Petition at 1-2.

> full consideration of the issues raised in the Commonwealth's new contention, also filed today, which challenges the adequacy of the environmental impact analysis and severe accident mitigation alternatives (SAMA) analysis performed by Entergy Corp. and the NRC in support of their proposal to re-license the Pilgrim nuclear power plant (NPP), in light of significant new information revealed by the Fukushima accident.[36]

The Commonwealth asserts that there are two fundamental tenets of the NRC's rulemaking on SFP issues which have been undermined by the results of the Fukushima accident and that, because the purpose of the regulation would not be served by its application in the unique circumstances of this licensing proceeding, a waiver is required.[37] In addition, the Commonwealth asserts that because SAMA analysis is performed on a plant-specific basis, and because the resultant implications from the Fukushima accident are plant-specific, the purpose of the regulation, to make a generic finding of no significant impact for all NPPs, will not be served.[38]

Nonetheless, the Commonwealth recognizes that

> information from the Fukushima accident continues to emerge, and that at this juncture the accident may not be completely understood. . . . [but], as discussed in Dr. [Gordon R.] Thompson's report, attached hereto, the Fukushima accident conclusively demonstrates that spent fuel pool and reactor accident risks are significantly higher than previously determined by the NRC.[39]

Discussing the Agency's duty to consider catastrophic events with large consequences and reasonably foreseeable impacts even where the probability of

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[36] *Id.* at 2.

[37] *See id.* at 3-4.

[38] *Id.* at 5.

[39] *Id.* (referring to Declaration of Dr. Gordon R. Thompson in Support of Commonwealth of Massachusetts' Contention and Related Petitions and Motions (June 1, 2011) [hereinafter Thompson Declaration]). The Commonwealth further notes:

> [The] accident is ongoing. Publicly available information about the accident in English language — and probably in Japanese as well — is incomplete and inconsistent at this time. Nevertheless, information has become available that is new and significant in the context of the Pilgrim NPP license renewal proceeding. Additional information of this type is likely to become available over the coming months.
>
> In his report, Dr. Thompson has identified six areas in which information that is presently available regarding the Fukushima accident supports either conclusive (established) or provisional (likely) findings that challenge the adequacy of the existing SAMA analysis for Pilgrim NPP, including the analysis related to spent fuel pool risks.

Id. at 16.

occurrence of such events is low,[40] the Commonwealth discusses the NRC's SAMA requirements and asserts that the continuing obligation to consider new information requires the NRC to update its EIS with supplemental SAMA analysis to include Fukushima-derived information.[41]

In the alternative, the Commonwealth requests that the Commission (before whom this petition was also filed) "rescind the spent fuel pool exclusion regulations across the board, in a rulemaking."[42]

In CLI-11-5, discussed above, the Commission ruled on the Commonwealth's request that the Commission suspend this proceeding and grant the public additional time to comment on the NRC's completed findings regarding Fukushima and to propose licensing or regulatory changes based on them.[43] Although the Commission did not directly issue an order respecting the Commonwealth's request that we waive the exclusion respecting spent fuel pool matters from license renewal matters, it did "*[d]eny* the requests for relief made by the Commonwealth of Massachusetts."[44]

Of particular import to the request before us to waive an existing rule excluding spent fuel pool matters from the scope of license renewal, the Commission, addressing safety and environmental contentions raised in ongoing proceedings, held:

> [O]ur license renewal review is a limited one, focused on aging management issues. It is not clear whether any enhancements or changes considered by the Task Force will bear on our *license renewal* regulations, which encompass a more limited review. The NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its "current licensing basis," which can be adjusted by future Commission order or by modification to the facility's operating license outside the renewal proceeding (perhaps even in parallel with the ongoing license renewal review).[45]

The Commission acknowledged that it is "'conducting extensive reviews to identify and apply the lessons learned from the Fukushima Daiichi accident, and . . . will use the information from these activities to impose any requirements it deems necessary, irrespective of whether a plant is applying for or has been

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[40] As we have observed before, remote and speculative events need not be considered in NEPA safety and environmental impacts analysis. *E.g.,* LBP-11-23, 74 NRC at 301 n.66.

[41] Waiver Petition at 20-28.

[42] *Id.* at 30.

[43] *Callaway,* CLI-11-5, 74 NRC at 171.

[44] *Id.* at 176 (emphasis in original).

[45] *Id.* at 164 (internal citations omitted).

granted a renewed operating license.'"[46] Nonetheless, because the Commission was not explicit on this particular waiver request, we address it here.

Turning to its request for waiver of the regulation excluding SFP matters from a license renewal proceeding, the Commonwealth asserts:

> The applicable regulation, 10 C.F.R. § 2.335(b), provides that the "sole ground for a petition of waiver or exception" to NRC regulations is that "special circumstances with respect to the subject matter of the particular proceeding are such that the application for the rule or regulation (or a provision of it) would not serve the purposes for which the rule or regulation was adopted."[47]

Section 2.335 of 10 C.F.R. provides that, absent a waiver or exception from the presiding officer, "no rule or regulation of the Commission, or any provision thereof, 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 subject to this part."[48] The presiding officer must dismiss any petition for waiver that does not make a "*prima facie* showing" of "special circumstances with respect to the subject matter of the particular proceeding . . . such that the application of the rule or regulation (or provision of it) would not serve the purposes for which the rule or regulation was adopted."[49]

In addition, as the Commonwealth properly points out,[50] the Commission has endorsed the four-pronged Millstone test respecting grant of a waiver:

> (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."[51]

The Commission carefully explained that: "The use of 'and' in this list of requirements is both intentional and significant. For a waiver request to be

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[46] *Id.* (quoting Entergy's Answer Opposing Petition to Suspend Pending Licensing Proceedings (May 2, 2011) at 3).

[47] Waiver Petition at 25.

[48] 10 C.F.R. § 2.335(a).

[49] *Id.* § 2.335(b)-(c).

[50] Waiver Petition at 26.

[51] *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005) (internal citations omitted). We agree that this same test is equally appropriate respecting a waiver regarding a NEPA-related contention.

granted, *all four* factors must be met."[52] The Commission also explained that asserting that a regulation does not ensure the protection of public health and safety is not always sufficient to satisfy the first prong:[53]

> Of course, *all* our Part 50 regulations are aimed, directly or indirectly, at protecting public health and safety. But that does not mean that they are all suitable subjects for litigation in a license renewal proceeding. They are not. In fact, the primary reason we excluded emergency-planning issues from license renewal proceedings was to limit the scope of those proceedings to "age-related degradation unique to license renewal." Emergency planning is, by its very nature, neither germane to age-related degradation nor unique to the period covered by the Millstone license renewal application. Consequently, it makes no sense to spend the parties' and our own valuable resources litigating allegations of *current* deficiencies in a proceeding that is directed to *future*-oriented issues of aging. Indeed, at an earlier stage of this very proceeding, the Commission approved a Board decision excluding an emergency-planning contention.[54]

Entergy argues that the Waiver Petition fails to meet the second of these four prongs (special circumstances), because "the Fukushima accident has revealed no special circumstances or new information about the likelihood of a spent fuel pool fire or applicable mitigation measures."[55] The Commonwealth addresses the second prong,[56] and the NRC Staff agrees that it has been satisfied.[57] But *all* of the prongs must be satisfied for a waiver to be granted and they are not. For example, the Commonwealth proffers no arguments regarding why the circumstances are "unique" to the Pilgrim facility rather than "common to a large class of facilities," although we might take its general arguments that all SAMAs are plant specific to address that matter.[58]

Staff observes that

> The third prong of the *Millstone* test embodies the Commission's policy to resolve generic issues through rulemaking, as opposed to a series of site-specific determinations in adjudications. Therefore, parties with new and significant information that could undermine the rationale for a Commission regulation must seek a rule-

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[52] *Id.* at 560.

[53] Although this ruling dealt with a safety-related regulation, we find the principle applicable to environmental matters — the mere assertion of a shortcoming in the regulation does not rise to the required level.

[54] *Id.* at 560-61 (internal footnotes omitted).

[55] Entergy Answer to Waiver Petition and Fukushima Contention at 44.

[56] Waiver Petition at 25-26.

[57] NRC Staff Answer to Waiver Petition at 14.

[58] *Id.* at 4.

making instead of challenging the regulation in a particular proceeding unless the information uniquely applies to a given adjudication.[59]

Asserting that the Commonwealth has failed to show any unique applicability to Pilgrim of information learned from the accident at Fukushima, Staff argues that all of the asserted phenomena applicable to Pilgrim could be applicable to other plants.[60] The Staff points out that Commonwealth expert Dr. Thompson's conclusions on probability are based upon global nuclear industry experience which, Staff avers, would therefore apply to all operating reactors and have no unique applicability to Pilgrim.[61] Similarly, Entergy argues that the Commonwealth has not demonstrated uniqueness, citing a number of examples such as the Commonwealth's assertion that reactor accident probability has increased which, Entergy states, must be based upon an analysis that inherently applies to every operating nuclear power plant in the world.[62] Staff notes the Commonwealth's use of the concept of site-specific analyses, but again asserts that the issues and arguments put forth by the Commonwealth are applicable to many other plants, not singularly Pilgrim.[63]

Further, the Staff argues that the Commonwealth has not satisfied the fourth Millstone prong because it has failed to demonstrate that the Fukushima accident raises a problem of regulatory significance for Pilgrim.[64]

Staff also asserts that the Commission has previously addressed and rejected, in this proceeding, a request for spent fuel pool accidents to be included in SAMA analyses, holding, instead, that generic analysis remains appropriate.[65] Staff further explains that the Commission's Task Force is presently undertaking an intensive review of the Fukushima events and is expected to consider many of the factors that led the Commission to conclude that the environmental impacts of onsite storage during the period of extended operations will be small.[66]

We agree with Entergy and Staff, for the reasons they have set forth in their respective Answers as well as the reasons set out in this Order, that the third element (uniqueness) of the Commission's four-pronged test is plainly not

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[59] NRC Staff Answer to Waiver Petition at 8 (citing 10 C.F.R. §§ 2.335, 2.802).

[60] *Id.* at 9.

[61] *Id.*

[62] Entergy Answer to Waiver Petition and Fukushima Contention at 44.

[63] NRC Staff Answer to Waiver Petition at 10. Indeed, this view is bolstered by the Commission's own view that "*lack of a specific link between the relief requested and the particulars of the individual applications* makes it difficult to conclude that moving forward with any individual licensing decision or proceeding will have a negative impact on public health and safety." *Callaway,* CLI-11-5, 74 NRC at 161 (emphasis added).

[64] *Id.* at 14.

[65] *Id.* at 10-11 (citing CLI-10-14, 71 NRC 449, 471, 477 (2010)).

[66] *Id.* at 15.

satisfied in the present circumstances. In *Millstone,* the Commission interpreted "uniqueness" as follows:

> As for the third waiver factor — uniqueness — we cannot accept Suffolk County's argument that its circumstances are "unique" to the Millstone facility rather than "generic." Suffolk County's principal claim to uniqueness is grounded in the county's proximity to a nuclear power facility located in an adjoining state. But Suffolk County is hardly unique in this respect. Suffolk County also claims to be unique due to changes in its demographics and roadway limitations. Yet, . . . this is an important but common problem addressed by the NRC's ongoing regulatory program. Other jurisdictions are subject to demographic trends similar to those of Suffolk County.[67]

Here a waiver has been requested from regulatory provisions that spent fuel storage pool matters are outside the scope of license renewal. Spent fuel matters will be addressed on a much wider scope than a singular focus upon the Pilgrim plant. Indeed there are more than twenty BWR Mark-I plants which share the characteristics of Pilgrim, not to mention the fact that each and every nuclear power plant in this country has a spent fuel pool. It is noteworthy that the NRC's Fukushima Task Force's recommendations regarding new programs that might be implemented in response to information gleaned from the Fukushima Dai-ichi accidents include a program of containment overpressurization protection measures for BWR Mark-I plants,[68] making plain that the issues raised are not "unique" to the Pilgrim plant alone. This is precisely the sort of program to which the Commission referred in CLI-11-5 when it stated that issues of this nature will be addressed, if its studies of the implications from Fukushima warrant, through more generic regulatory reform.[69]

For the foregoing reasons, we DENY the request of the Commonwealth of Massachusetts for a waiver of the NRC's spent fuel pool exclusion regulations.

Nonetheless, even though matters respecting spent fuel pools are outside the scope of this proceeding, and therefore all aspects of the Commonwealth Fukushima Contention that regard spent fuel pools are inadmissible, because the Commonwealth's pleadings intertwine matters respecting increased spent fuel risks and severe (reactor) accident risks, we do not entirely eliminate discussion of some of those portions of the Commonwealth Fukushima Contention in our discussion below.

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[67] *Millstone,* CLI-05-24, 62 NRC at 562 (internal footnotes omitted).

[68] Near-Term Task Force Report § 4.2.2.

[69] *See Callaway,* CLI-11-5, 74 NRC at 174-75.

C. Fukushima Contention

For the proposed new contention to be admitted, the Commonwealth, as the party proposing admission of the contention, must satisfy the Commission's demanding regulatory requirements for reopening the record.[70]

As we noted in our earlier orders,[71] the Commission emphasized, in this proceeding, the need for affidavits to support any motion to reopen, finding that intervenors' speculation that further review of certain issues "might" change some conclusions in the final safety evaluation report did not justify restarting the hearing process.[72] This view was repeated in the Commission's ruling on the various requests by petitioners that all licensing proceedings be stayed until the Commission has completed its studies of the effects of the accidents at Fukushima.

In addition, should the requirements for reopening the record be satisfied, the requirements for untimely contentions under 10 C.F.R. § 2.309(c) must be satisfied, and the Commonwealth Fukushima Contention must satisfy the contention admissibility criteria of 10 C.F.R. § 2.309(f)(1).

1. Legal Standards Governing Motion to Reopen the Record

We addressed in depth the standards for reopening a record in our Pre-Fukushima Order and expanded that discussion in our Pilgrim Watch Post-Fukushima Order, and do not repeat that entire discussion here; rather we hereby incorporate that discussion by reference and set out only a few key points.

The standards for reopening the record under 10 C.F.R. § 2.326(a) are as follows:

> (1) The motion must be timely. However, an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented;
> (2) The motion must address a significant safety or environmental issue; and
> (3) The motion must demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

And, as we noted in our previous rulings, a motion to reopen must be

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[70] *See* 10 C.F.R. § 2.326. In this regard, the Commission has most recently repeated its view when addressing the numerous Fukushima-related petitions: "[O]ur rules deliberately place a heavy burden on proponents of contentions, who must challenge aspects of license applications with specificity, backed up with substantive technical support; mere conclusions or speculation will not suffice. An even heavier burden applies to motions to reopen." *Callaway,* CLI-11-5, 74 NRC at 169 (internal citations omitted).

[71] Pilgrim Watch Post-Fukushima Order at 8; Pre-Fukushima Order at 13.

[72] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 486 (2008). The CLI-08-23 order involved four NRC proceedings, including the Pilgrim proceeding.

"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."[73] In such affidavits, "[e]ach of the criteria must be separately addressed, with a specific explanation of why it has been met."[74]

Additionally, where a motion to reopen relates to a contention not previously in controversy, section 2.326(d) requires that the motion demonstrate that the balance of the nontimely filing factors (*see* 10 C.F.R. § 2.309(c)) favors granting the motion to reopen. The section 2.309(c) factors are as follows:

> (i) Good cause, if any, for the failure to file on time;
> (ii) The nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding;
> (iii) The nature and extent of the requestor's/petitioner's property, financial or other interest in the proceeding;
> (iv) The possible effect of any order that may be entered in the proceeding on the requestor's/petitioner's interest;
> (v) The availability of other means whereby the requestor's/petitioner's interest will be protected;
> (vi) The extent to which the requestor's/petitioner's interests will be represented by existing parties;
> (vii) The extent to which the requestor's/petitioner's participation will broaden the issues or delay the proceeding; and
> (viii) The extent to which the requestor's/petitioner's participation may reasonably be expected to assist in developing a sound record.

Finally, if the reopening standards are inapplicable as the Commonwealth avers, or if the reopening criteria had been satisfied, the new contention must also meet the standards for contention admissibility under 10 C.F.R. § 2.309(f)(1), and, where the contention is based upon new information, those of 10 C.F.R. § 2.309(f)(2).

2. Analysis of Commonwealth Fukushima Contention

The Commonwealth's pleadings respecting the Fukushima Contention assert:

> [T]he environmental impact analysis and the SAMA analysis in Supp. 29 to the Generic Environmental Impact Statement (GEIS) for License Renewal (1996) are inadequate to satisfy NEPA because they fail to address new and significant information revealed by the Fukushima accident that is likely to affect the outcome of those analyses. The new and significant information shows that both core-melt accidents and spent fuel pool accidents are significantly more likely than estimated

[73] 10 C.F.R. § 2.326(b).
[74] *Id.*

> or assumed in Supp. 29 of the License Renewal GEIS or the SAMA analysis for the Pilgrim NPP. As a result, the environmental impacts of re-licensing the Pilgrim NPP have been underestimated. In addition, the SAMA analysis is deficient because it ignores or rejects mitigative measures that may now prove to be cost-effective in light of this new understanding of the risks of re-licensing Pilgrim.[75]

Based upon these assertions, the Commonwealth asserts that the Pilgrim SAMA analysis should be redone to encompass

> measures to accommodate: (a) structural damage; and (b) station blackout, loss of service water, and/or loss of fresh water supply, occurring for multiple days. Also, the measures to be considered should include systems for hydrogen explosion control, filtered venting of containment, and replacement of high-density spent fuel storage racks with low-density open-frame racks.[76]

The Commonwealth supports its contention with, and provides for its basis, the report and the declaration of Dr. Thompson.[77] The findings in that declaration and report, the Commonwealth observes, are classified by Dr. Thompson as either "Provisional" or "Conclusive."[78]

The Commonwealth further supports the admissibility of this contention with a separate filing (Motion to Admit) submitting its legal arguments for admissibility.[79] The Commonwealth states, as to the separate filing:

> *While the Commonwealth does not believe that the record of this proceeding has closed, the motion also seeks re-opening of the record in the alternative, in the event the ASLB determines that it has closed.* The motion covers all issues that must be addressed in order to raise a contention at a late stage of a license renewal adjudication.[80]

In its Motion to Supplement, the Commonwealth asserts:

> [T]he Task Force recommended that the NRC incorporate some potential severe accidents into the "design basis" and subject them to mandatory safety regulations. By doing so, the Task Force also effectively recommends a significant change in

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[75] Fukushima Contention at 5-6.

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

[77] Thompson Declaration; Gordon R. Thompson, Institute for Resource and Security Studies, New and Significant Information from the Fukushima Daiichi Accident in the Context of Future Operation of the Pilgrim Nuclear Power Plant (June 1, 2011) [hereinafter Thompson Report].

[78] Fukushima Contention at 8.

[79] Motion to Admit and Reopen.

[80] Fukushima Contention at 4 (emphasis added).

> the NRC's system for mitigating severe accidents through consideration of severe accident mitigation alternatives (SAMAs). As the Task Force recognizes, currently the NRC does not impose measures for the mitigation of severe accidents unless they are shown to be cost-beneficial or unless they are adopted voluntarily. . . . The Task Force now suggests that some severe accident mitigation measures should be adopted into the design basis, i.e., the set of regulations adopted without regard to their cost which establish the minimum level of adequate protection required for all nuclear power plants. . . . Thus, the values assigned to the cost-benefit analysis for Pilgrim SAMAs should be re-evaluated in light of the Task Force's finding that the value of some SAMAs is so high that they should be required as a matter of course.[81]

The Commonwealth supports its Motion to Supplement with a second Declaration from Gordon R. Thompson,[82] in which he raises matters respecting spent fuel pools and probabilities of both severe accidents and spent fuel pool fires.[83] He asserts, in relevant part, as follows (emphasis added):

> Each of [the Task Force's twelve overarching] recommendations calls for action that is new and significant in the context of future operation of the Pilgrim plant. For example, Recommendation #7 (see page 46 of the Task Force report) calls for enhanced instrumentation and water makeup capability for the spent-fuel pool of each nuclear power plant (NPP) licensed by the NRC. These capabilities do not now exist at the Pilgrim plant, and *have the potential to reduce the risk of a spent-fuel-pool fire at the plant*. . . .
>
> . . . .
>
> There are at least two technical reasons why the Task Force recommendations should be considered in the Pilgrim license extension proceeding. First, many of the actions recommended in the Task Force report have plant-specific features, and therefore require plant-specific regulatory attention. Second, as shown in this declaration, the findings in the Task Force report call for substantial revision of the Pilgrim-specific supplement to the NRC's generic environmental impact statement (GEIS) for license renewal of nuclear power plants, especially Appendix G of that supplement. It is my understanding that completion of an accurate, plant-specific supplement to the GEIS is required before a license extension is granted. It is my further understanding that severe accident mitigation alternatives (SAMAs) that are determined in that supplement to be cost-effective must be implemented as a condition of license extension.
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> . . . .

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[81] Motion to Supplement at 5.

[82] Declaration of Gordon R. Thompson Addressing New and Significant Information Provided by the NRC's Near-Term Task Force Report on the Fukushima Accident (Aug. 11, 2011) [hereinafter Thompson Supplemental Declaration].

[83] *E.g., id.* ¶¶ I-6, III-2 to III-4.

. . . When NPPs such as Pilgrim were designed, nuclear safety regulation was founded on the principle that abnormal situations, such as accidents, would occur within a plant's design basis. Over time, analysis and operating experience revealed that the design basis originally adopted was inadequate, resulting in a significant risk of fuel damage and radioactive release to the environment. Piecemeal efforts to address this basic problem have led to the "*patchwork of beyond-design-basis requirements and voluntary initiatives*" described in the Task Force report. Overarching Recommendation #1 in that report (see its page ix) is to establish a "logical, systematic, and coherent regulatory framework" to replace the present patchwork.[84]

Drawing from his earlier report, Dr. Thompson states:

a. The Thompson 2011 report set forth . . . findings on six specific issues that are directly relevant to license extension for the Pilgrim plant. Information provided in the Task Force report supports these findings, as shown in the following paragraphs.

. . . . The first specific issue discussed in the Thompson 2011 report . . . was the *probability of reactor core damage and radioactive release, accounting for cumulative direct experience.* The Thompson 2011 report found that, *for the purposes of SAMA analysis, **direct experience** provides an estimate of probability that is more appropriate than licensee estimates derived from the use of probabilistic risk assessment (PRA) techniques.*[85]

The NRC Staff explains that the direct experience approach

"comput[es] the core damage frequency (CDF) for a particular plant (in this case, Pilgrim) by taking the historical number of all core-damage events that have occurred at all commercial nuclear plants, regardless of plant design and site conditions, and dividing that number by the total number of years of operation of all commercial nuclear plants worldwide."[86]

In his report, Dr. Thompson asserts that his direct experience approach provides a *reality check* for PRA estimates, which are known to be uncertain, and that it would be prudent and responsible to assume, until proven otherwise, that a particular NPP has a core damage frequency (CDF) as indicated by direct

[84] *Id.* ¶¶ I-6, I-8, II-3 (emphasis added) (footnotes omitted).

[85] *Id.* ¶¶ III-1 to III-2 (emphasis added). The "direct experience" approach is at the center of the Commonwealth's arguments.

[86] NRC Staff Opposition to Fukushima Contention at 9 (quoting *id.,* Attach., Affidavit of Dr. S. Tina Ghosh in Support of the NRC Staff's Response to Massachusetts' Motion to Admit New Contention and Reopen to Admit New and Significant Information (June 27, 2011) at 2-3 [hereinafter Ghosh Affidavit]).

experience.[87] He further asserts that the burden of proving that a particular NPP has a lower CDF falls to the licensee.[88]

In his supplemental declaration, Dr. Thompson also discusses the capability for operators to mitigate an accident:

> The second specific issue discussed in the Thompson 2011 report . . . was the *operators' capability to mitigate an accident, and the effect of that capability on the conditional probability of a spent-fuel-pool fire during a reactor accident.* The Thompson 2011 report set forth three findings on this issue. First, the operators' capability to mitigate an accident at the Pilgrim NPP can be severely degraded in the local environment created by a reactor accident. Second, the nuclear industry's recently-disclosed extensive damage mitigation guidelines (EDMGs) are inadequate to address the range of core-damage and spent-fuel-damage events that could occur at Pilgrim. Third, *there is a substantial conditional probability of a spent-fuel-pool fire during a reactor accident at Pilgrim.*[89]

Going on, Dr. Thompson recognizes that the Task Force report does not directly address the statements of his report, but asserts the Task Force nonetheless, in effect, endorses his findings:

> The Task Force report does not directly address the [three] findings [on operators' capability to mitigate an accident] . . . . However, Task Force recommendations effectively endorse these findings. For example, implicit endorsement of these findings is clearly evident in Task Force Recommendation #7. . . . Recommendation #7 calls for *enhanced instrumentation and water makeup capability for the spent-fuel pool of each nuclear power plant licensed by the NRC.* Pages 43-46 of the Task Force report provide details. The recommended capabilities do not now exist at the Pilgrim plant.[90]

Dr. Thompson further asserts:

> The fourth specific issue discussed in the Thompson 2011 report . . . was hydrogen control. The Thompson 2011 report found that *hydrogen explosions similar to those experienced at Fukushima could occur at the Pilgrim NPP.*
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> . . . Recommendations #5 and #6 in the Task Force report clearly support the finding of the Thompson 2011 report on hydrogen control. Recommendation #5, described at pages 39-41 of the *Task Force report, calls for requirement of reliable, hardened venting of the containment at each boiling-water-reactor (BWR) plant with a Mark*

[87] Thompson Report at 16.
[88] *See id.* at 17.
[89] Thompson Supplemental Declaration ¶ III-4 (emphasis added).
[90] *Id.* ¶ III-5 (emphasis added).

> *I or Mark II containment.* The Pilgrim plant is a BWR with a Mark I containment. Hydrogen control would be one of the major functions of the recommended venting system. It should be noted . . . that *hardened venting systems at BWR plants have a variety of plant-specific design features.* Recommendation #6, described at pages 41-43 of the Task Force report, calls for further investigation of hydrogen control as part of a longer-term review of the Fukushima accident.
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> . . . The fifth specific issue discussed in the Thompson 2011 report . . . was the *probability of a spent-fuel-pool fire and radioactive release, accounting for Fukushima direct experience*. . . . The Thompson 2011 report found that there is a substantial conditional probability of a spent-fuel-pool fire during a reactor accident at Pilgrim.[91]

As discussed above,[92] for this new contention submitted by the Commonwealth to be admitted, there are several legal thresholds to be passed: the requirements of 10 C.F.R. § 2.326; the requirements for a nontimely contention set out in subsection (c) of 10 C.F.R. § 2.309; and all of the requirements for an admissible contention under 10 C.F.R. § 2.309(f)(1), and, where the reopening requirements have been satisfied or are inapplicable, the requirements of subsections (i) through (iii) of 10 C.F.R. § 2.309(f)(2).

Although the pleadings are not organized to address these standards separately, we address them seriatim for clarity.

a. The Requirements of 10 C.F.R. § 2.326 Regarding Reopening a Closed Record

The Commonwealth states, in its Motion to Admit, that it believes the standards set out in 10 C.F.R. § 2.309(f)(2)(i)-(iii) for the timely filing of contentions based on newly discovered information govern admissibility of their contention because it believes the record of this proceeding remains open and the contention is timely filed.[93] Nevertheless, it addresses the reopening standards.

Entergy answers that the Commonwealth's contention fails to satisfy any of the standards for reopening a closed record, asserting that it fails to meet any of the requirements in 10 C.F.R. § 2.326(a)(1)-(3) and that the supplied affidavit fails to satisfy the requirements of 10 C.F.R. § 2.326(b).[94] Similarly, Staff answers generally that this contention should be denied because it does not satisfy the standards for reopening a closed record, the Thompson Report does not establish that information gleaned for the accident at Fukushima itself would materially

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[91] *Id.* ¶¶ III-8 to III-10 (emphasis added).
[92] *Supra* Section II.C.
[93] Motion to Admit at 2.
[94] Entergy Answer to Waiver Petition and Fukushima Contention at 18.

alter the Pilgrim SAMA analysis and the findings of the GEIS, or that they raise a significant environmental issue, or is timely.[95]

(i) IS THE MOTION TIMELY UNDER SECTION 2.326(a)(1)?

The Commonwealth begins with the assertion that the contention is timely because it is based upon new, not previously available information.[96] The contention is based, asserts the Commonwealth, upon new information from the Fukushima accident regarding the *actual* occurrence of radiological release rather than the probabilistic analysis used in the present license renewal application (LRA).[97] Referring to the Thompson Report, the Commonwealth avers that new information is now available regarding the probability of core melt, station blackout duration, the effectiveness of mitigation measures (including the potential benefits of filtered containment venting), and the import of spent fuel accidents.[98]

Further, argues the Commonwealth, the contention is timely submitted because it was submitted "before the NRC ha[d] even published its initial findings about an accident that continues to unfold."[99] The Commonwealth observes that "from a technical standpoint it would have been preferable to wait for further developments before filing a contention," but stated that it filed its contention based on then-available information because a license renewal decision for the Pilgrim NPP may be imminent.[100]

The Commonwealth summarizes the new and significant information as follows:

1. The experience of the Fukushima accident, taken together with the history of other NPP accidents in the world, shows that the estimate of core damage frequency relied on in Supp. 29 and the related SAMA analysis is unrealistically low by an order of magnitude.
2. The experience of the Fukushima accident shows that the NRC's assumptions about operators' capability to mitigate an accident at the Pilgrim NPP are unrealistically optimistic and that in fact, the operators' capability to carry out mitigative measures can be severely degraded in the accident environment.

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[95] NRC Staff Opposition to Fukushima Contention at 2.

[96] Motion to Admit at 3.

[97] *Id.*

[98] *Id.* at 3 (citing Thompson Report at 14-18, 29).

[99] *Id.* at 5.

[100] *Id.* (citing Thompson Declaration ¶ 14 and Thompson Report at 5-6). In this regard, we note the Commission's view, discussed above, that the pending renewal of a license is not a reason to suspend licensing activities. *See supra* text accompanying note 32.

a. Mitigative measures known as extensive damage mitigation guidelines (EDMGs), which the NRC previously relied on in its Rulemaking Denial to dismiss the Commonwealth's concerns that spent fuel pool storage impacts are insignificant, are clearly inadequate to address the range of core-damage and spent-fuel-damage events that could occur at Pilgrim.

b. Given the demonstrated ineffectiveness of the mitigative measures relied on by the NRC to conclude that spent fuel storage impacts are insignificant, there is a substantial conditional probability of a spent-fuel-pool fire during a reactor accident at Pilgrim.

c. Based on operators' experience during the Fukushima accident and a review of the EDMGs that were publicly disclosed pursuant to the Fukushima accident, the NRC's excessive secrecy regarding accident mitigation measures and the phenomena associated with spent-fuel-pool fires degrades the licensee's capability to mitigate an accident at the Pilgrim NPP.

d. Based on the occurrence of hydrogen explosions at Fukushima NPPs and on the reported experience of Fukushima operators with hydrogen control systems, it appears likely that hydrogen explosions similar to those experienced at Fukushima could occur at the Pilgrim NPP, and therefore should be considered in the SAMA analysis.

e. Based on currently available information regarding damage to spent-fuel pools and their support systems (for cooling, makeup, etc.), there appears to be a substantial conditional probability of a spent-fuel-pool fire during a reactor accident at Pilgrim. Therefore the NRC's previous rejection of the Commonwealth's concerns regarding the environmental impacts of high-density pool storage of spent fuel has been refuted.

f. Based on the reported release of radioactive material to the atmosphere from NPPs at Fukushima, it appears likely that filtered venting of the Pilgrim reactor containment could substantially reduce the atmospheric release of radioactive material from an accident at the Pilgrim NPP.[101]

Staff avers that none of the reasons the Commonwealth provides satisfies the timeliness criterion in 10 C.F.R. § 2.326(a)(1) and because of ongoing efforts and the developing state of information on the accident, the Commonwealth's contention, as framed, is premature.[102] Moreover, asserts Staff, the lack of definitive information causes the claims to be in the nature of speculation, and the Commonwealth must raise issues that are "based on 'more than mere allegations; it must be tantamount to evidence' to overcome the strict requirements

[101] Fukushima Contention at 6-7.
[102] NRC Staff Opposition to Fukushima Contention at 13.

for reopening a closed record."[103] Thus, Staff concludes, the Commonwealth's attempts to litigate the impact of the events of Fukushima are untimely because its contention largely relies, even according to the Commonwealth, upon incomplete and undeveloped information.[104]

Entergy asserts that all of the Commonwealth's claims and bases could have been raised long ago, and that Fukushima provided no materially new information with respect to these claims.[105] To support this assertion, Entergy challenges the "newness" of information providing the foundation for the "direct experience" information underlying the Commonwealth's challenge, arguing:[106]

> *First,* Dr. Thompson's CDF calculation is not timely raised. If the CDF assumed by the Pilgrim SAMA analysis is "unrealistically low" after the Fukushima accident under Dr. Thompson's direct experience method, it was also unrealistically low long before Fukushima. Under Dr. Thompson's reasoning, there were two core melt accidents before Fukushima, Three Mile Island and Chernobyl. Two core melt accidents over approximately 14,484 years of reactor operations results in a "direct experience" CDF of approximately 1.4E-04 per reactor year, or approximately four times higher than the CDF assumed in the Pilgrim SAMA. At the time the Pilgrim LRA was submitted five years ago, there were approximately 2,200 fewer reactor years of operation experience than there are now (five years multiplied by 440 operating units). Hence, at the time the initial opportunity for hearing was announced, the direct experience method would have revealed a CDF of 1.6E-04 per reactor year, or five times more than that assumed in the Pilgrim SAMA analysis. Under Dr. Thompson's rationale, the Pilgrim SAMA analysis CDF has been deficient since the outset of the proceeding, and therefore Dr. Thompson's direct experience challenge to Pilgrim's SAMA analysis is not timely raised now.[107]

Entergy goes on to discuss the Commonwealth's renewed claims respecting spent fuel issues, asserting that nothing new or materially different regarding spent fuel issues is raised.[108] Entergy notes that the Commonwealth raised the same issue in its appeal of the Commission's Rulemaking Denial to the U.S. Court of Appeals for the Second Circuit.[109]

Entergy then argues that the Commonwealth's claim that "excessive secrecy

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[103] *Id.* at 14.

[104] *Id.*

[105] Entergy Answer to Waiver Petition and Fukushima Contention at 21.

[106] Because of the fundamental import of these arguments to our decision, we repeat Entergy's response nearly verbatim.

[107] *Id.* at 22-23.

[108] *Id.* at 23-25.

[109] *Id.* at 25 (citing Brief of Petitioners at 33-34, *New York v. NRC,* 589 F.3d 551 (2d Cir. 2009) (No. 08-3903-ag(L))).

degrades the licensee's capability to mitigate an accident at the Pilgrim NPP" is a policy issue unrelated to any SAMA or NEPA issue.[110]

As to hydrogen explosion issues, Entergy provides affidavit support for the position that the potential for hydrogen explosions is not new, but rather has been recognized by the industry since the Three Mile Island accident, and regulations are in place to ensure that combustible gases are controlled to minimize this potential.[111] Further to the point, Entergy notes that Dr. Thompson does not point out any respect in which he claims that the Pilgrim SAMA inadequately considered hydrogen explosions.[112] Thus, argues Entergy, there is no new or materially different information from Fukushima that was not already accounted for in the Pilgrim SAMA analysis.[113]

Finally, Entergy points out that the installation of a filtered direct torus vent (DTV) was considered in Pilgrim's SAMA analysis and subsequent responses to NRC requests for additional information, and that the accidents at Fukushima have revealed no new or materially different information not already considered in Pilgrim's SAMA analysis.[114]

Addressing the alternative means to satisfy section 2.326(a)(1), the Commonwealth asserts its contention presents an exceptionally grave issue for three reasons:

> *First,* the Fukushima accident shows that a severe reactor and/or spent-fuel-pool accident is significantly more likely than estimated or assumed in the NRC's current environmental analyses for the Pilgrim NPP. *Second,* the experience of the Fukushima accident shows that the accident mitigation measures relied on by the NRC are inadequate to prevent the type of catastrophic damage at Pilgrim that has occurred at Fukushima. *Finally,* the Fukushima accident shows how corrosive and debilitating to accident responders is the high level of secrecy that the NRC has maintained with respect to accident mitigation measures, thereby contributing to the use of ineffective measures at Fukushima. Accident mitigation measures (excluding sensitive, site-specific details) should be subject to public scrutiny in an appropriate environmental review process, which includes those with primary emergency responsibilities such as the Commonwealth, in order to ensure that

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[110] *Id.* at 25 (quoting Fukushima Contention at 7).

[111] *Id.* at 26 (citing *id.,* Attach., Declaration of Joseph R. Lynch, Lori Ann Potts, and Dr. Kevin R. O'Kula in Support of Entergy's Answer Opposing Commonwealth Claims of New and Significant Information Based on Fukushima ¶ 76 [hereinafter Lynch, Potts, and O'Kula Declaration] and 10 C.F.R. § 50.44).

[112] *Id.*

[113] *Id.* (citing Lynch, Potts, and O'Kula Declaration ¶¶ 79-88).

[114] *Id.* (citing Lynch, Potts, and O'Kula Declaration ¶¶ 92-99).

> they are known to emergency personnel and have been adequately evaluated for effectiveness.[115]

Entergy answers that, because exceptionally grave is interpreted to mean "a sufficiently grave threat to public safety," since the Commonwealth's contention does not regard any safety issue but seeks only revised environmental analyses in light of the purportedly new information, there is nothing in the Fukushima Contention that can be characterized as exceptionally grave.[116]

(ii) DOES THE MOTION ADDRESS A SIGNIFICANT SAFETY OR ENVIRONMENTAL ISSUE?

Addressing the requirements of section 2.326(a)(2), the Commonwealth asserts the contention raises a significant environmental issue for the same reasons that it presents an exceptionally grave issue: the Fukushima accident shows that (1) the Pilgrim environmental analyses underestimate the likelihood of a severe reactor and/or spent fuel pool accident; (2) the NRC is relying on inadequate accident mitigation measures; and (3) the NRC's high level of secrecy about accident mitigation measures debilitates accident responders.[117]

As to the specific assertion that a significant environmental issue was raised, Entergy refers us to the standard adopted by the Commission that "the allegedly new and significant information must 'paint a seriously different picture of the environmental landscape.'"[118] Entergy asserts that bare assertions and speculation do not supply the requisite support to satisfy the section 2.326 standards; i.e., a mere showing that changes to the SAMA analysis results are possible or likely or probable is not enough.[119] Entergy asserts that the Commonwealth's own pleadings ("*likely* to affect" and "*may* prove to be") demonstrate its assertions are speculative.[120] Entergy explains that Dr. Thompson's declaration is also speculative and void of connection to the Pilgrim SAMA analysis or the Pilgrim Environmental Report.[121] Like Entergy, Staff avers the motion to reopen the

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[115] Motion to Admit and Reopen at 10-11 (emphasis added) (citing Thompson Declaration ¶ 15 and Thompson Report).

[116] Entergy Answer to Waiver Petition and Fukushima Contention at 27.

[117] Motion to Admit and Reopen at 10 (citing Thompson Declaration ¶ 15 and Thompson Report).

[118] Entergy Answer to Waiver Petition and Fukushima Contention at 28 (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 28 (2006) [hereinafter *Private Fuel Storage II*]).

[119] *Id.* (quoting *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 287 (2009) and *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 670, 674 (2008) [hereinafter *Oyster Creek I*]).

[120] *Id.* at 28-29 (quoting Fukushima Contention at 5, 9) (emphasis added by Entergy).

[121] *Id.* at 29.

record should be denied for failing to satisfy 10 C.F.R. § 2.326(a)(2);[122] the Commonwealth has not

> demonstrated that the . . . contention raises a significant environmental issue. . . . Because [the Commonwealth's] claims challenge the GEIS and the SAMA analysis, which is a part of the NRC's environmental review, the . . . contention raises an environmental issue.[123]

Noting that there is no precise definition of the level of issue necessary to be "significant," Staff asserts the proper standard can be determined by analogy to an Appeal Board decision regarding the significance of safety contentions stating that to demonstrate a significant safety issue, "petitioners 'must establish either that uncorrected . . . errors endanger safe plant operation, or that there has been a breakdown of the quality assurance program sufficient to raise legitimate doubt as to the plant's capability of being operated safely.'"[124] Based on this logic, Staff states:

> The Thompson Report discusses none of the site specific risks at Pilgrim that are discussed in the FSEIS and lacks sound, technical analyses that compare the site characteristics of the Pilgrim and Fukushima plants. . . . Consequently, [the Commonwealth] cannot claim, based on the events at Fukushima, that the Pilgrim plant presents a unique threat to public health and safety.
>
> [The Commonwealth] also has not shown that the issue it seeks to raise constitutes a significant environmental issue that requires the Board to make an exception and re-open a closed record. [The Commonwealth] seeks to ensure compliance with NEPA. But, the courts have often observed that NEPA is a procedural statute that does not mandate any particular results. . . .
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> In fact, Dr. [S. Tina] Ghosh and Dr. Nathan Bixler recently explained in a June 6, 2011 affidavit, in response to Pilgrim Watch's request for hearing on a new SAMA contention, "that the SAMA analysis is not a safety analysis; it is a cost-benefit analysis for the purpose of identifying cost-beneficial mitigation alternatives that existing plant examinations missed." Thus, the SAMA analysis has no direct safety or environmental significance.[125]

The Commonwealth, in its Reply, responds:

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[122] NRC Staff Opposition to Fukushima Contention at 13.

[123] *Id.* at 10.

[124] *Id.* at 1011 (quoting *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-940, 32 NRC 225, 243 (1990)).

[125] *Id.* at 12 (citations omitted).

> The Staff's position that SAMAs are legally insignificant is incorrect as a matter of law. As the Council on Environmental Quality recognizes, consideration of alternatives "is the heart of the environmental impact statement." Consistent with NEPA's requirement to consider alternatives, the NRC's Severe Reactor Accidents Policy Statement commits the Commission to "take all reasonable steps to reduce the chances of occurrence of a severe accident involving substantial damage to the reactor core and to mitigate the consequences of such an accident should one occur." . . .
>
> Moreover, the Staff misses the point of the Commonwealth's contention, which is that new information shows the existence of previously unconsidered accident vulnerabilities that increase the environmental impacts of re-licensing Pilgrim and therefore the outcome of the cost-benefit analysis of alternatives. The Fukushima accident brings severe accident statistics worldwide to a level which is well above the generally accepted goals for nuclear safety of no more than one accident per 100,000 reactor year.[126]

Responding to the Staff's use of the word "unique," the Commonwealth argues

> NEPA contains no requirement that environmental impacts must be particular to a facility in order to be worthy of consideration in an EIS. The only relevant question is whether the experience of the Fukushima accident shows that the potential for a severe accident at the Pilgrim nuclear plant is significantly greater than previously considered in the environmental analyses for Pilgrim — and the Commonwealth has met that standard of proof, based upon expert testimony and the NRC's own past practice and pronouncements on the significance of direct experience to evaluate risk.[127]

(iii) DOES THE MOTION DEMONSTRATE THAT A MATERIALLY DIFFERENT RESULT WOULD BE OR WOULD HAVE BEEN LIKELY HAD THE NEWLY PROFFERED EVIDENCE BEEN CONSIDERED INITIALLY?

And, finally, as to the requirements of section 2.326(a)(3), the Commonwealth asserts that a materially different result would be likely because the NRC would have considered a

> much broader and more rigorous array of severe accident mitigation alternatives (SAMAs) than have been previously considered, including systems for hydrogen control, containment venting, and replacement of high-density spent fuel storage racks with low-density, open-frame racks.[128]

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[126] Reply for Waiver Petition and Fukushima Contention at 7-8 (internal citations omitted).
[127] *Id.* at 9.
[128] Motion to Admit and Reopen at 11 (citing Thompson Declaration ¶ 16 and Thompson Report § VI).

Entergy and the NRC Staff aver that the contention fails to demonstrate that a materially different result would be obtained had the asserted new information been considered *ab initio.*[129] Entergy notes that the Commonwealth has a "deliberatively heavy" burden to demonstrate that a materially different result would be likely, and that it is not sufficient simply to raise an issue: "Rather, 'longstanding agency practice hold[s] that a party seeking to reopen a closed record to introduce a new issue . . . must back its claim with enough evidence to withstand summary disposition when measured against its opponent's contravening evidence.'"[130] Entergy points out that "'no reopening of the evidentiary hearing will be required if the documents submitted in response to the motion demonstrate that there is no genuine unresolved issue of fact.'"[131] Entergy's asserts its experts' declaration "shows that there is no genuine unresolved issue of material fact."[132]

Staff and Entergy assert that their experts' declarations refute Dr. Thompson's claim that direct experience shows that "the licensee has underestimated the baseline CDF [(core damage frequency)] of the Pilgrim plant by an order of magnitude."[133] Entergy asserts its experts' declaration explicitly demonstrates that Dr. Thompson's "direct experience" method

> is not a scientifically accepted approach because it has no basis in logic, has never been used to calculate a CDF, and violates fundamental precepts of PRA developed and used throughout the nuclear industry, including regulation by the NRC. . . . [*and*] is inherently invalid in that it does not provide an appropriate statistical basis for calculating the CDF for Pilgrim.[134]

Entergy elaborates that

> Dr. Thompson's direct experience CDF method directly contradicts fundamental precepts of PRA developed and used throughout the nuclear industry, including regulation by the NRC for the past 36 years. Under well-established NRC precedent, practice and regulatory guidance, PRAs are based on specific reactor and containment design, operating procedures, and site considerations for evaluating

[129] Entergy Answer to Waiver Petition and Fukushima Contention at 31; NRC Staff Opposition to Fukushima Contention at 8.

[130] Entergy Opposition to Fukushima Contention at 30 (quoting *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 348 (2005) [hereinafter *Private Fuel Storage I*]).

[131] *Id.* at 30-31 (quoting *Private Fuel Storage I,* CLI-05-12, 61 NRC at 350).

[132] *Id.* at 31.

[133] NRC Staff Opposition to Fukushima Contention at 8 (quoting Thompson Report at 17); *see also* Entergy Answer to Waiver Petition and Fukushima Contention at 31 (citing Thompson Report at 17).

[134] Entergy Answer to Waiver Petition and Fukushima Contention at 31 (citing Lynch, Potts, and O'Kula Declaration ¶¶ 16-18, 33-34).

overall vulnerabilities, establishing prioritization of potential improvements, and for purposes of making risk-informed decisions. Utilizing design-specific and site-specific information is critical to obtain meaningful results because many nuclear plants have significant differences in design and siting that directly affect the probability of a core damage event. Dr. Thompson's direct experience CDF method would nevertheless establish one CDF for all plants with no distinction for design and site differences. Dr. Thompson's method ignores and fails to take into account plant-unique site conditions, plant design, support system dependencies, plant maintenance procedures, plant operating procedures, operator training, and the dependencies all of which directly affect and influence the CDF estimate for a specific plant.[135]

The Staff's expert, Dr. Ghosh, also criticizes the direct experience method because it "does not consider that each power plant has different risks that are based on the design of the plant, the site location, and site geography among other things."[136] The Staff also points out that Dr. Thompson does not discuss any of that in depth.[137]

Entergy concludes that

[a]pplied to the facts and circumstance here, Dr. Thompson's direct experience CDF method would have Pilgrim and all other plants arbitrarily increase their CDF even though they may never be subject to a tsunami nor, if subject, may be able to mitigate the event so as to suffer no core damage.

For similar reasons, Dr. Thompson's direct experience method is inherently inadequate to estimate the CDF for Pilgrim in that it does not provide a sufficient or appropriate statistical basis for doing so. . . . The inappropriateness of using Dr. Thompson's direct experience method for calculating the CDF is highlighted by the fact that none of the five core-melt data points in Dr. Thompson's database are applicable to Pilgrim.[138]

The Staff also points out:

[T]he contention, as framed by [the Commonwealth], raises issues that either were previously considered and rejected by the Board and the Commission or were found to not demonstrate that there would be a materially different result if the events of Fukushima are considered. The Staff has already considered spent fuel pool accidents similar to the events referenced in [the Commonwealth's] Contention, and

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[135] *Id.* at 31-32 (citing Lynch, Potts, and O'Kula Declaration ¶¶ 18-24).

[136] NRC Staff Opposition to Fukushima Contention at 9 (citing Ghosh Affidavit at 2).

[137] *Id.*

[138] Entergy Answer to Waiver Petition and Fukushima Contention at 34-35 (citing Lynch, Potts, and O'Kula Declaration at ¶ 23).

> those results have been represented in the GEIS. Nothing known about the FDNPP accident indicates a significant environmental impact not previously considered in the GEIS. Therefore, issues 2 ("operator actions"), 3 ("secrecy"), and 5 ("spent fuel pool fires") are not subject to legal challenges under the re-opening and contention admissibility rules.[139]

Turning to the Commonwealth's assertions about spent fuel pool accidents,[140] Entergy, relying upon, and citing to as relevant, its experts' affidavits, asserts that there again, the Commonwealth has failed to demonstrate that a materially different result would be likely had their allegedly new and significant information been considered initially, and that Entergy's Declaration shows that there is no genuine unresolved issue of material fact.[141]

Regarding hydrogen generation, the NRC Staff continues:

> Next, the Thompson Report asserts that generation of hydrogen during a reactor accident is a problem and discusses the flaws associated with Mark I reactor containments. Though Dr. Thompson attempts to draw comparisons that "the Pilgrim NPP and the NPPs involved in the Fukushima accident each have a low-volume, pressure-suppression containment[,"] the analysis stops short of analyzing how this general design observation would materially alter the current Pilgrim SAMA analysis. . . .
>
> The report lacks any detailed discussion of how the Mark I reactor containment design at Fukushima is similar or different from the design at the Pilgrim plant, the site-specific risks and hazards at the Pilgrim plant, or how the operation at Fukushima and Pilgrim might differ. In addition, while Dr. Thompson concludes in the report that "filtered venting of containment should be considered in a re-done SAMA analysis for Pilgrim," the report ignores the FSEIS discussion identifying filtered vents as one of the candidate SAMAs.[142]

Entergy argues that Dr. Thompson's claims that hydrogen explosions experienced at Fukushima could be replicated at the Pilgrim plant, and that the potential for such explosions has not been adequately considered in Pilgrim's SAMA analysis, that containment venting and other hydrogen control systems at Pilgrim should be upgraded, and that the plant should be modified to use passive mechanisms as much as possible, are not justified in light of what actually occurred at Fukushima.[143] Entergy avers that Dr. Thompson "nowhere references

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[139] NRC Staff Opposition to Fukushima Contention at 7-8 (internal footnotes and citations omitted).

[140] Notwithstanding our denial of the Commonwealth's requested waiver of our spent fuel pool accident exclusionary regulations, we address these matters here for completeness.

[141] *See* Entergy Answer to Waiver Petition and Fukushima Contention at 31, 36-40.

[142] NRC Staff Opposition to Fukushima Contention at 9-10 (internal footnotes and citations omitted).

[143] Entergy Answer to Waiver Petition and Fukushima Contention at 41.

or addresses the Pilgrim SAMA analysis's extensive consideration of hydrogen explosions, let alone provide[s] any explanation of how any of it is inadequate."[144] Referring extensively to its experts' Declaration, Entergy observes that the potential for hydrogen explosions is not new information; both design features and regulations are in place at Pilgrim to control hydrogen generation and to prevent hydrogen explosions within the primary containment.[145] In particular, the Pilgrim primary containment is inert, i.e., filled with noncombustible nitrogen gas, and Pilgrim's procedures for containment venting assure that sufficient hydrogen does not accumulate within the primary containment.[146] For example, based on the data from Fukushima, Entergy states that the Pilgrim venting procedures would require venting of the primary containment long before that action was undertaken at Fukushima.[147] In further contrast to the events at Fukushima, Entergy points out that, "[a]t Pilgrim the authority to vent the containment rests with the control room Shift Manager, rather than a government official, as appears to have been the case at Fukushima."[148] Moreover, states Entergy,

> the potential for hydrogen explosions within either the primary or secondary containments has been fully considered in the Pilgrim SAMA analysis. Specifically, hydrogen explosion within the primary containment is considered a credible mechanism for early primary containment failure, which considers the potential loss of containment integrity at or before reactor pressure vessel failure.[149]

Entergy observes that

> Table E.1-5 of the Environmental Report specifically identifies a functional event node that considers failure of the primary containment vessel due to hydrogen explosion. Several collapsed accident progression bins ("CAPBs"), which represent the consequence radioactive source terms that are used to evaluate postulated accident consequences in the SAMA analysis, include accident sequences in which early containment failure occurs. Thus, hydrogen explosion is considered in these CAPBs. Similarly, the potential for hydrogen explosion in the reactor building has been considered, because the SAMA analysis considers the ability of the reactor building to retain fission products released from containment.[150]

Entergy points out that Dr. Thompson "nowhere references, discusses, or other-

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[144] *Id.*

[145] Entergy Answer to Waiver Petition and Fukushima Contention at 42 (citing Lynch, Potts, and O'Kula Declaration ¶ 76).

[146] *Id.* (citing Lynch, Potts, and O'Kula Declaration ¶¶ 76-77).

[147] *Id.* (citing Lynch, Potts, and O'Kula Declaration ¶ 77).

[148] *Id.* (citing Lynch, Potts, and O'Kula Declaration ¶ 77).

[149] *Id.* (citing Lynch, Potts, and O'Kula Declaration ¶¶ 79-88).

[150] *Id.* at 42-43 (citing Lynch, Potts, and O'Kula Declaration ¶¶ 83, 85-87).

wise disputes the means by which hydrogen explosion are [sic] already considered in the Pilgrim SAMA analysis."[151]

Entergy asserts that, as demonstrated in a report prepared by the Government of Japan on the Fukushima accident (the Japanese Government Report) and confirmed by the International Atomic Energy Agency (IAEA) Mission Report on Fukushima, it is clear that the Fukushima hydrogen explosions occurred in the reactor buildings, or secondary containments, of Units 1 and 3.[152] Entergy points out that "[t]his distinction is important because the primary containment is the robust concrete-reinforced steel structure designed to contain radioactive releases from any damage to the reactor vessel."[153] At Fukushima Units 1 and 3, Entergy states,

> although the leakage pathways have not been identified, hydrogen and radioactive material leaked into the secondary containment and then exploded. The result is that some gases that were intended to be released into the environment first collected in the reactor building and then were released into the environment with the explosion.[154]

Entergy states that "[t]his sequence of events stands in stark contrast to what could have occurred had the primary containments themselves suffered catastrophic failures from hydrogen explosions."[155]

Further, Entergy asserts that Dr. Thompson's claims regarding the alleged secrecy of mitigative measures do not concern either NEPA or SAMA analysis, and are therefore not pertinent here.[156]

(iv) IS THE MOTION SUPPORTED BY AN EXPERT AFFIDAVIT?

The Commonwealth asserts, addressing the requirement for an expert affidavit set out in section 2.326(b), that its motion is supported by the declaration of an expert, Dr. Thompson, that sets forth the factual and/or technical bases for the Commonwealth's claims that the criteria of 10 C.F.R. § 2.326(a) have been

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[151] *Id.* at 43 (citing Lynch, Potts, and O'Kula Declaration ¶ 88).

[152] *Id.* at 41 (citing Lynch, Potts, and O'Kula Declaration, Exh. 4, Nuclear Emergency Response Headquarters, Government of Japan, Report of Japanese Government to the IAEA Ministerial Conference on Nuclear Safety — The Accident at TEPCO's Fukushima Nuclear Power Stations (June 2011) [hereinafter Japanese Government Report] and Lynch, Potts, and O'Kula Declaration, Exh. 5, Michael Weightman et al., IAEA International Fact Finding Expert Mission of the Fukushima Dai-ichi NPP Accident Following the Great East Japan Earthquake and Tsunami (May 24-June 2, 2011) [hereinafter IAEA Report]).

[153] *Id.* at 41-42 (citing Lynch, Potts, and O'Kula Declaration ¶ 73).

[154] *Id.* at 42 (citing Lynch, Potts, and O'Kula Declaration ¶ 73).

[155] *Id.* (citing Lynch, Potts, and O'Kula Declaration ¶ 73).

[156] *Id.* at 40.

satisfied.[157] The Commonwealth further asserts that the Thompson Supplemental Declaration also sets forth those bases.[158]

Entergy disagrees, asserting that the Commonwealth's contention is not supported by the requisite expert affidavit, noting that 10 C.F.R. § 2.326(b) requires that a supporting affidavit "be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised."[159] Referring us to the principle that the party sponsoring a witness has the burden of demonstrating his or her expertise, Entergy asserts that Dr. Thompson's "Declaration and Curriculum Vitae fail to show that he has the requisite education, training, skill, or experience in the operation of a nuclear power plant or in PRA . . . to support [the] Commonwealth's Contention."[160]

Entergy avers that Dr. Thompson's "'simplistic' method for calculating CDF entirely disregards the detailed design-, plant type-, and site-specific PRA analysis that identifies initiating events and their likelihood of potentially leading to core damage used to establish the CDF, subsequent reactor containment release, and environmental release conditions."[161]

b. The Requirements of 10 C.F.R. § 2.309(c)

As to being based upon information which was not previously available, the Commonwealth alleges it demonstrates the Fukushima accident has produced new and significant information (which it has detailed as we noted above) and that "the risk of core melt accident[s] is an order of magnitude higher than estimated in Supp. 29 of the License Renewal GEIS."[162]

They also assert that "the Fukushima accident conclusively showed that the types of mitigative measures that the NRC relied on . . . were ineffective to stop the progression of a very serious spent fuel pool accident,"[163] but note that "[w]hile affirmative evidence of a pool fire has not emerged at this writing, nothing about

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[157] Motion to Admit and Reopen at 12 (citing Thompson Declaration and Thompson Report).

[158] Motion to Supplement at 11.

[159] Entergy Answer to Waiver Petition and Fukushima Contention at 18 (quoting 10 C.F.R. § 2.326(b)); Entergy Opposition to Motion to Supplement at 20 n.17 (quoting 10 C.F.R. § 2.326(b)).

[160] Entergy Answer to Waiver Petition and Fukushima Contention at 18-19 (quoting *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-410, 5 NRC 1398, 1405 (1977)).

[161] *Id.* at 19 (citing Lynch, Potts, and O'Kula Declaration ¶¶ 24-28).

[162] Fukushima Contention at 2. The Commonwealth also asserts that the accident confirmed the Commonwealth's previously aired concerns that spent fuel pools present unacceptable environmental risks. *Id.*

[163] *Id.* at 2-3.

the accident has contradicted Dr. Thompson's view that the Pilgrim spent fuel poses a serious risk of fire if water is lost from the pool."[164]

As to the requirement that the information on which the contention is based is materially different than information previously available, the Commonwealth asserts (referring to the Thompson report at 14-18) a material difference because their new contention "is based primarily on the actual occurrence and experience of a radiological accident, as contrasted with predictions of the behavior of an accident based on probabilistic risk assessment."[165] The Commonwealth then concludes that "the experience of the Fukushima accident provides new insights into the probability of reactor core melt events, the potential duration of station blackouts, the effectiveness of mitigative measures, and the behavior of spent fuel pools under accident conditions."[166]

And, finally, the Commonwealth asserts that because the releases from Fukushima are ongoing, the NRC is studying the information and the practice of the NRC is to consider filings made within 30 days of an event timely, this filing is timely.[167]

Addressing the requirements of 2.309(c), the Commonwealth argues that it satisfies the first and most important factor — "good cause" — because it "filed the contention while information is still being released about the accident, and within the same time frame as the NRC's initial study of the implications of the Fukushima accident."[168] As to other factors (all of which are addressed by the Commonwealth), we note that, as to the requirement of 10 C.F.R. § 2.309(c)(1)(vii), the Commonwealth states that "while the Commonwealth's participation may broaden or delay the proceeding . . . , this factor may not be relied on to exclude the contention, because the NRC has a non-discretionary duty to consider new and significant information that arises before it makes its licensing decisions."[169]

Entergy answers that Commonwealth has not demonstrated good cause for its late filing and the balancing of the remaining factors of section 2.309(c) does not overcome that failing.[170] Entergy explains that this failure is for the same reasons the contention is not timely under sections 2.326(a)(1) and 2.309(f)(2) and that the information available from the Fukushima accident is insufficient grounds for

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[164] *Id.* at 2 (citing Thompson Report at 26-27).

[165] Motion to Admit and Reopen at 3 (citing Thompson Report at 14-18).

[166] *Id.*

[167] *Id.* at 4-5.

[168] *Id.* at 6.

[169] *Id.* at 8 (citing *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360 (1989)).

[170] Entergy Answer to Waiver Petition and Fukushima Contention at 54. Entergy also addresses the requirements of section 2.309(f)(2). *Id.* at 21-22.

lateness.[171] Noting that the Commission grants considerable weight to the seventh and eighth factors in performing the balancing of the remaining factors, Entergy observes that: "With regard to the seventh factor, adding a new contention will, without a doubt, significantly delay and broaden this proceeding, which is already into its sixth year. Indeed, the Commonwealth concedes the point."[172] Similarly, Entergy takes the position that the eighth factor also weighs against admission because, it asserts, Dr. Thompson "is not qualified to opine on the issues raised concerning nuclear operations and PRA analysis."[173] Further, Entergy asserts it has demonstrated that "no materially different result would be likely were the Commonwealth's claims considered."[174] Thus Entergy asserts that this contention fails to satisfy the requirements for admissibility of nontimely contentions.[175]

Staff discussed timeliness in its response to the section 2.326(a)(1) requirements.[176] The essence of Staff's argument is that, because the information is still developing and incomplete (by the Commonwealth's own admission), it is premature to bring this contention and it is therefore not timely.[177]

In addition, Staff addresses, in part, the requirements of 2.309(c), although it does not address the dominant "good cause" factor. Staff avers, as to the seventh factor that

> though the Commission does not afford 10 C.F.R. § 2.309(c)(1)(vii) the same amount of weight as the good cause factor, the Commission has placed a significant amount of weight on this factor due to the "policy of expediting the handling of license renewal applications — which rests on the lengthy lead time necessary to plan available sources of electricity." Granting a petition to reopen the record and adding a new contention would "necessarily broaden the issues . . . and delay the proceeding" thus requiring "the reopening [of] a closed administrative adjudicatory record." The Commission found § 2.309(c)(1)(vii) to weigh against the petitioner.
> . . . .
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> . . . [Furthermore] the information relied on by [the Commonwealth's] Contention is incomplete and raises spent fuel pool accident claims that have already been rejected. The impact of the events at Fukushima on the Commission's policies, procedures and regulations are unknown at this time and a full report by the NRC Task Force addressing this question is imminent. These issues are not susceptible to resolution in an individual license renewal proceeding and could reach a result that is ultimately inconsistent with the Commission's response to Fukushima.

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[171] *Id.* at 55.
[172] *Id.* at 56 (citing Motion to Admit and Reopen at 8).
[173] *Id.* at 57.
[174] *Id.*
[175] *See id.*
[176] NRC Staff Opposition to Fukushima Contention at 13-16.
[177] *See id.* at 13-14.

> Assuming [the Commonwealth] was allowed to litigate the . . . Contention, the Board would be forced to significantly delay the close of this proceeding and set a second, later schedule for litigation of this new contention that would need to address broad policy and legal issues. Without adequate justification, this scenario runs afoul of the Commission's policy of expediency in these types of proceedings. Thus, the addition of the . . . Contention would broaden the issues and unjustifiably delay the proceeding.
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> Regarding the eighth factor, [the Commonwealth] could not contribute to the development of a sound record for the same reasons that it could not satisfy the seventh factor. And, contrary to [the Commonwealth's] arguments on this factor, Dr. Thompson's report does not demonstrate with sufficient detail how the events at Fukushima would materially alter the current Pilgrim SAMA analysis nor has the report identified additional cost-beneficial SAMAs. Therefore, [the Commonwealth's] participation would not contribute to the development of a sound record.[178]

Therefore, asserts Staff, "by failing to present a compelling showing on the seventh and eighth factor, [the Commonwealth] has not satisfactorily met the eight factor balancing test," and the Motion should be denied.[179]

c. The Requirements of 10 C.F.R. § 2.309(f)(1)

The Commonwealth provided the requisite statement of law or fact to be controverted,[180] and supplies the Thompson Declaration, the Thompson Supplemental Declaration, and the Thompson Report which go toward satisfaction of the requirements of 10 C.F.R. § 2.309(f)(1)(ii).[181]

As regards the requirements for an admissible contention under 10 C.F.R. § 2.309(f)(1)(iii), the Commonwealth asserts the contention is within the scope of this proceeding because it "seeks compliance with a legal requirement for the re-licensing of the Pilgrim NPP, *i.e.,* consideration of new and significant information that could have an effect on the outcome of the environmental analysis for the Pilgrim NPP."[182]

As regards the requirements for an admissible contention under 10 C.F.R. § 2.309(f)(1)(iv), the Commonwealth asserts that the contention is material to the findings the NRC must make because "some previously rejected or ignored

[178] *Id.* at 17-19 (internal citations omitted).
[179] *Id.* at 19.
[180] *See* 10 C.F.R. § 2.309(f)(1)(i).
[181] Motion to Admit and Reopen at 8.
[182] *Id.*

SAMAs may prove to be cost effective in light of the experience of the Fukushima accident."[183]

As regards the requirements for an admissible contention under 10 C.F.R. § 2.309(f)(1)(iv)-(vi), the Commonwealth asserts that there is a genuine dispute of material fact because Dr. Thompson's declarations and report

> demonstrate[ ] — either conclusively or provisionally — that the environmental impacts of re-licensing the Pilgrim NPP are significantly greater than estimated or assumed by the license applicant and the NRC. Therefore the environmental impact analysis for the Pilgrim NPP should be re-evaluated and the SAMA analysis should be revised to consider mitigative measures that previously may have been ignored or rejected.[184]

Entergy answers that the Commonwealth's contention fails to satisfy the criteria for an admissible contention.[185] To begin, Entergy asserts that Dr. Thompson has not provided the necessary support for the contention to satisfy the requirements of section 2.309(f)(1)(v) that the petition must provide a concise statement of the alleged facts or expert opinions that support the petitioner's position.[186] In this regard, in addition to the challenges earlier set out by Entergy to the qualifications of Dr. Thompson and to the substance of his report, Entergy asserts:

> First, as previously discussed, the Commonwealth has failed to meet its burden to demonstrate that Dr. Thompson is competent to address the claims raised in his Report concerning nuclear operations, SAMAs, and PRA analysis. Without expert support for its assertions, the Commonwealth's Contention is not viable.
>
> Further, the Thompson Report lacks reference to any source or support for the factual assertions and opinions contained therein. Specifically, Dr. Thompson's "direct experience" CDF calculation is not supported by any source or reference. Despite Dr. Thompson's proclamation that "[t]he probability of severe core damage and an accompanying radioactive release can be estimated in two ways[,]" he provides no reference or citation to any scientific report, study, analysis, peer-reviewed scientific journal article, or any other document of any type to support his bald claim. Dr. Thompson's methodology has never been used for calculating a CDF for PRA applications and is not a scientifically accepted approach. Under well-established NRC precedent, practice and regulatory guidance, PRAs are based on specific reactor and containment design, operating procedures, and site considerations for evaluating overall vulnerabilities, establishing prioritization of potential improvements, and for purposes of making risk-informed decisions. Dr. Thompson's methodology is

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[183] *Id.* at 9.
[184] *Id.* at 10.
[185] Entergy Answer to Waiver Petition and Fukushima Contention at 57-58.
[186] *Id.* at 59.

> novel, fails to adhere to any NRC practice and regulatory guidance, fails to account for operating procedures, and fails to take into account site and design differences. In fact, the Report fails to rely on or cite to any legitimate support, practice or procedure whatsoever.[187]

Indeed, Entergy further asserts, citing specific examples regarding consideration of hydrogen explosions and implementation of filtered vented containment in the present LRA, that the contention fails to demonstrate the existence of a genuine dispute because:

> Despite its numerous claims that the SAMA analysis needs to be redone, the Contention makes no reference or citation to the Pilgrim LRA and the SAMA analysis purportedly challenged here. Under the NRC's Rules of Practice, "a protestant does not become entitled to an evidentiary hearing merely on request, or on a bald or conclusory allegation that such a dispute exists. The protestant must make a minimal showing that material facts are in dispute, thereby demonstrating that an 'inquiry in depth' is appropriate."[188]

Next, Entergy asserts (and, as we noted above, we agree) that all portions of the contention addressing issues regarding spent fuel pools are outside the scope of this proceeding, and therefore those portions fail to satisfy the requirements of 2.309(f)(1)(iii).[189] Also outside the scope of this proceeding, Entergy asserts, are challenges to the current licensing basis set out in the Commonwealth's assertions that "potentially cost beneficial SAMAs be incorporated into the plant's design basis; Pilgrim's spent fuel pool be equipped with low density, open-framed racks; and Pilgrim's DTV be equipped with filtered venting using passive mechanisms."[190]

As to Commonwealth's secrecy claim, Entergy avers that the claim fails to satisfy the requirements of 10 C.F.R § 2.309(f)(1)(iv) because it "fails to demonstrate how public disclosure of the mitigative measures put in place after September 11 (referred to also as the EDMG's) is material to the findings the NRC must make" regarding the requested license renewal.[191] Entergy points out that "[t]he Commonwealth cites no regulation or other basis showing that public

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[187] *Id.* at 59-60 (internal citations and footnotes omitted).

[188] *Id.* at 62-64 (citation omitted).

[189] *Id.* at 60-61. The Commission stated in CLI-10-11: "Pilgrim Watch raises numerous new claims relating to spent fuel pool fires, and argues that the SAMA analysis is deficient for failing to address potential spent fuel pool accidents. These claims fall beyond the scope of NRC SAMA analysis and impermissibly challenge our regulations." CLI-10-11, 71 NRC at 312 (internal citations and footnotes omitted).

[190] *Id.* at 61 (citing Thompson Report at 17-18, 25-26, 28-29).

[191] *Id.* at 62.

disclosure of EDMGs is material to license renewal," and asserts that "public disclosure of the EDMG's is irrelevant to NEPA and certainly has no impact on the outcome of the SAMA analysis."[192]

Staff answers that the contention does not satisfy the requirements of 10 C.F.R. § 2.309(f)(1)(iii) ("[d]emonstrate that the issue raised in the contention is within the scope of the proceeding"), (iv) ("[d]emonstrate . . . the contention is material to the findings the NRC must make"), and (vi) ("provide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact").[193] Staff also asserts that

> [The Commonwealth] relies on the Thompson Report to challenge the Commission's previous findings excluding issues related to on-site storage of spent fuel under 10 C.F.R. Part 51, Subpart A, Appendix B. As discussed above, claims raised in relation to on-site storage of spent fuel are *outside the scope* of license renewal.[194]

Further, Staff asserts that

> Until, and unless, [the Commonwealth's] pending Waiver Petition is granted, [the Commonwealth's] claims are not litigable. Accordingly, "secrecy[,]" "operator actions[,"] and "spent fuel pool fires" claims should be dismissed for falling outside of the scope of license renewal. Because the claims are also immaterial to the findings that the Staff must make, the . . . Contention should be dismissed for failing to satisfy 10 C.F.R. § 2.309(f)(1)(iv).[195]

Staff calls to our attention binding precedent holding that:

> Because the record in this proceeding is closed, [the Commonwealth] must set forth the basis of its . . . Contention with "a degree of particularity in excess of the basis and specificity requirements contained in 10 C.F.R. § 2.714(b) [now section 2.309(f)(1)] for admissible contentions." *See . . . Oyster Creek I,* CLI-08-28, 68 NRC at 668 ("Commission practice holds that the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention."). Support for [the Commonwealth's] Contention must "be more than mere allegations; it must be tantamount to evidence." In other words, the evidence must comport with the requirements for admissible evidence at hearing in § 2.337 — it must be relevant, material, and reliable.[196]

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[192] *Id.* at 62 (internal citation omitted).
[193] NRC Staff Opposition to Fukushima Contention at 2.
[194] *Id.* at 21 (emphasis added).
[195] *Id.*
[196] *Id.* at 20-21 (some citations omitted).

Staff, in essence, then argues that the evidence supplied by the Commonwealth does not rise to the necessary standard, asserting, for example, that

> [The Commonwealth] bases its contention on the events at Fukushima in Japan, but it does so without establishing the relevance of those events to Pilgrim in Massachusetts. The Thompson Report proposes that a SAMA analysis be re-done based on the Fukushima events, because "[o]ne can reasonably find that the licensee has under-estimated the baseline CDF of the Pilgrim plant by an order of magnitude" based on "the occurrence of five core-damage events over a world-wide experience base . . . ." However, there is no discussion of how the increased CDF factors, based on all the plant experience throughout the world, would generically apply to an individual plant such as Pilgrim. And, the Thompson Report provides no technical analyses that refute the extensive study of plant-specific hazards and risks at Pilgrim and discussed in its FSEIS. As a result, Dr. Thompson has not shown that an increased CDF would materially alter the Pilgrim SAMA analysis.
>
> The Thompson Report proposes that a SAMA analysis that considers station blackout and loss of power scenarios should be done, but as Dr. Ghosh explained in the affidavit "five of the seven potentially cost-beneficial SAMAs identified in the [Applicant's Environmental Report] and as a result of the NRC's SAMA review mitigate the loss-of-power scenarios . . . of which station blackout is a subset." The Thompson Report does not refute the specific findings or make a demonstration of how an increased CDF baseline using his approach would likely result in identification of an additional potentially cost-beneficial SAMA analysis or that additional potentially cost-beneficial SAMAs will result. Therefore, there is no genuine issue in dispute with the license applicant.
>
> The Thompson Report also asserts that filtered venting should be considered in a redone SAMA analysis for Pilgrim. However, the Pilgrim FSEIS did consider filtered venting as a candidate SAMA and it was determined not to be cost-beneficial. And, the Thompson Report does not refute these findings. . . . [Therefore], the Thompson Report does not demonstrate that the issues raised constitute the "heightened" showing of admissibility needed to reopen the record. *Because [the Commonwealth] cannot demonstrate a genuine dispute with the applicant, the contention [fails to satisfy the requirements of 2.309(f)(1)(vi) and therefore] is inadmissible.*[197]

In its Reply, Commonwealth asserts that this is not the appropriate stage to determine that there is no genuine dispute of material fact by eliminating testimony from Dr. Thompson, noting:

> In their responses, the NRC Staff and Entergy submit expert declarations to dispute the opinions and analysis put forward by the Commonwealth's expert that, in light

[197] *Id.* at 22-23 (emphasis added) (citations omitted).

of the real world events at Fukushima, certain material inputs or assumptions in Entergy's SAMA analysis are flawed, have produced a SAMA that significantly understates the risk of continued plant operation, and do not take account of additional SAMA analysis which could be identified as potentially cost-beneficial. This dispute of expert opinion and fact is the best evidence that a material dispute exists between the parties on an issue (SAMA analysis) material to relicensing.[198]

3. *Ruling on Commonwealth Fukushima Contention*

a. *The Commonwealth Has Not Satisfied the Requirements of 10 C.F.R. § 2.326(a) for Reopening the Closed Record*

(i) THE REQUIREMENTS OF 10 C.F.R. § 2.326(a)(1)

As to the requirement that the motion must be timely,[199] we agree that Commonwealth has filed a pleading respecting information regarding the accident at Fukushima within the time frame which would be considered timely if all that were at issue were a claim based wholly upon information produced by the Fukushima accident and/or the Near-Term Task Force Report.[200] The Commonwealth asserts, as we mentioned above, that the new information from the Fukushima accident advises that analysis must utilize data respecting the actual occurrence of radiological release rather than the probabilistic analysis used in the present LRA, and the Commonwealth avers that new information is now available regarding the probability of core melt, station blackout duration, the effectiveness of mitigation measures (including the potential benefits of filtered containment venting), and the import of spent fuel accidents.[201]

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[198] Reply for Waiver Petition and Fukushima Contention at 3 (citation omitted).

[199] We address later the proviso that an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented.

[200] Although the Staff make powerful arguments that the contention is untimely (premature) because information is still being developed from the accident at Fukushima, NRC Staff Opposition to Fukushima Contention at 13-16, the Commonwealth asserts it is compelled to raise this matter now because of the rapidly approaching date of expiration of the existing license for Pilgrim (or, conversely, the date for commencement of a license renewal term, if the renewal is granted). Fukushima Contention at 4 n.6. All parties recognize that information is continuing to be developed and that it would be preferable to await more complete information. And, we must be cognizant of the Commission's view, stated in this proceeding when it ruled on the petitions to suspend licensing activities, that it is unnecessary to cease current licensing activities at this juncture because it has authority to, and will, address these matters with future rulemaking and requirements to be applied to then-operating plants if the information it obtains from the Fukushima accidents so warrants. *See Callaway,* CLI-11-5, 74 NRC at 163-64.

[201] *See* Motion to Admit and Reopen at 3 (citing Thompson Report at 14-18).

Connecting these events to Pilgrim, Commonwealth asserts that the assumptions used in the Pilgrim SAMA analyses are demonstrated to be in error by the facts of the Fukushima accident and three other core-damaging events which have occurred at commercial power reactors worldwide (i.e., by its "direct experience" information).[202] To begin our analysis of the timeliness question and the relevance of the Fukushima-derived information to the present proceeding, we note that, as the IAEA Mission Report and the Japanese Government Report (referred to above) make clear, the root cause of the accident at Fukushima was the beyond-design-basis earthquake that caused the beyond-design-basis tsunami which resulted in a beyond-design-basis duration of station blackout. The Commonwealth indicates no linkage whatsoever between these events and the potential for a beyond-design-basis duration of station blackout at Pilgrim. Therefore the Commonwealth proffers no new information relevant to the Pilgrim plant regarding station blackout or mitigation measures implemented at Pilgrim to prevent or ameliorate the effects of station blackout. Thus there is no new information respecting Pilgrim regarding those two matters, and it therefore cannot form the basis for an assertion of timeliness for the purposes of section 2.326.

As we held above, spent fuel accidents are outside the scope of this proceeding; there is, therefore, no relevance to this proceeding of assertions regarding spent fuel accidents, and they cannot form the basis for the timeliness considerations.

Thus we turn to the remaining information asserted to be new and relevant to the Pilgrim SAMA: the Commonwealth's "direct experience" arguments that new information from the accident at Fukushima demonstrates that the actual frequency of occurrence of radiological release is considerably higher than the frequency used in the probabilistic analysis set out in the present Pilgrim LRA. Use of this new information, the Commonwealth asserts, could cause revised SAMA analysis to show that other mitigation measures are cost-effective for Pilgrim. But as we discussed above, the Commonwealth's assertion is based upon the occurrence of several core-damaging events that have occurred worldwide — not singularly upon information derived from the Fukushima accidents — and two of the accidents forming the foundation for that argument occurred decades ago. Further, the Commonwealth mixes this argument with the assertion that the core damage frequency (CDF) is demonstrated by those accidents to be considerably larger than the numerical values used in the Pilgrim SAMA analysis, but neither challenges any of the scenario-specific CDFs used in the Pilgrim probabilistic safety assessment (PSA) nor provides any explanation or discussion of how its "direct experience" methodology would or could be used to develop a spectrum of CDFs for the variety of scenarios of core damaging

[202] Fukushima Contention at 6.

event sequences examined at Pilgrim or elsewhere.[203] Thus, to begin with, the Commonwealth's claim has a fatal flaw; it fails completely to indicate how this "direct experience" leads to any data affecting the CDFs for the Pilgrim plant. As Entergy's arguments make consummately clear, the Commonwealth makes no linkage between the macroscopic observation of the overall frequency of material offsite radiological release for nuclear power plants worldwide and the event sequence analysis employed in the Pilgrim SAMA analysis.[204] For this reason, the Commonwealth's contention fails to indicate any new information respecting the Pilgrim plant. As Entergy's arguments make plain, the information that the use of probabilities based upon the use of actual macroscopic frequency of occurrence of offsite radiological release would lead to considerably higher probabilities for severe accidents than those used in the Pilgrim SAMA analysis is not new and is in large part based upon the occurrence of previous core-damaging events. As Entergy points out, the use of that approach would have led, based upon earlier events, to a computed frequency of occurrence of 1.6E-04 (which is well above the threshold for events that must be considered in the plant's licensing basis) prior to the occurrence of the Fukushima accident.[205] Thus the issue of whether the "direct experience" method for estimating a macroscopic frequency of occurrence of a severe offsite radiological release from a core damaging accident should be used in the Pilgrim SAMA analysis could have been raised at the time of the submittal of the original LRA[206] — the only difference that would

[203] The Commonwealth's assertions, as well as those of Dr. Thompson, simply fail to discuss (let alone challenge analysis in the LRA), the use of Core Damage Frequencies for any of the Fukushima Dai-ichi plants or the Pilgrim plant. But, as the LRA demonstrates, CDFs must be developed for the entire spectrum of core damaging events, ranging from those that do minimal damage to those that involve massive core melting such as occurred in the TMI-2 accident, and there is nothing presented by Commonwealth's assertions or the Thompson Report or Affidavits from which we could even infer a relationship between the macroscopic observations from Fukushima, their assertions of massive errors in CDF, and the analysis methodologies used in any SAMA analysis (including that specifically used for Pilgrim). Similarly, the Commonwealth's approach fails to address linkage between core damage and containment failure which is necessary to result in release of radiation to locations offsite, and to discuss how the initiating events at Fukushima (earthquake followed by tsunami, resulting in station blackout) can be expected to occur at Pilgrim, or how those events, if they did occur at Pilgrim, might result in offsite radiation release at Pilgrim.

[204] The Pilgrim SAMA analysis is a probabilistic safety analysis whereby probabilities are developed and assigned to each event in the series and those are utilized, in connection with all other event series analyzed, to develop overall release probabilities.

[205] Entergy Answer to Waiver Petition and Fukushima Contention at 22-23.

[206] Entergy points out — based upon a simple computation that is not disputed and therefore cannot be said to be the subject matter of a "battle of experts" (and as to which it cannot be said we are weighing evidence) — that

(Continued)

be attributable to information arising out of the Fukushima accident is that the macroscopic frequency of occurrence would be a different (but lower) value after the Fukushima accident than before it. We agree with Entergy that a challenge on the basis that the Pilgrim SAMA analysis should have used a "direct experience" method (employing actual macroscopic, as opposed to theoretical frequencies of occurrence[207]), could (and therefore should) have been raised *ab initio,*[208] and therefore is not timely now.

Since the foundation for everything raised by this contention being relevant to this proceeding is the charge that the frequency of occurrence of severe accidents is erroneously underestimated, and that challenge should have been raised at the outset of this license renewal proceeding, we find that the Commonwealth's contention fails to satisfy the requirements of 10 C.F.R. § 2.326(a)(1) as to being timely filed.

Thus, we turn to consideration of whether the challenge raises an "exceptionally grave issue." The Commonwealth does not point us to any definition of when an issue is exceptionally grave, but Entergy points to a plain definition of the phrase set out in the Commission's final rule regarding the standards for reopening a closed record: "'exceptionally grave' means 'a sufficiently grave threat to public safety.'"[209]

Dr. Thompson states in paragraph 15 of his Declaration that he

> believe[s] the Commonwealth's contention addresses exceptionally grave environmental issues, for three reasons. First, the Fukushima accident shows that a severe

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> at the time the initial opportunity for hearing was announced, the direct experience method would have revealed a CDF of 1.6E-04 per reactor year, or five times more than that assumed in the Pilgrim SAMA analysis. Under Dr. Thompson's rationale, the Pilgrim SAMA analysis CDF has been deficient since the outset of the proceeding . . . .

Id. at 23.

[207] Although not explicitly developed, this assertion of a theoretical probability in essence amounts to an assertion that the probability of occurrence of a severe accident developed via PSA techniques because it is based upon, in part, information for the probabilities of specific events in the chain of events analyzed as to which there is not experimental or experiential data, the overall probability of the severe accident is "theoretical." In our view, this is an attempt to compare apples and bricks; the overall macroscopic observation that there have been a certain numerical value of occurrences of severe accidents for all operating reactors worldwide is simply not comparable to the rigorous event chain analysis whereby probabilities are determined for each such event in the chain and then a wide range of possible event sequences are analyzed to develop an overall probability of occurrence of severe accidents.

[208] Entergy succinctly puts it as follows: "If the CDF assumed by the Pilgrim SAMA analysis is 'unrealistically low' after the Fukushima accident under Dr. Thompson's direct experience method, it was also unrealistically low long before Fukushima." *Id.* at 22.

[209] *Id.* at 27 (quoting Criteria for Reopening Records in Formal Licensing Proceedings, 51 Fed. Reg. 19,535, 19,536 (May 30, 1986)) (omitted Entergy's emphasis).

> reactor and/or spent-fuel-pool accident is significantly more likely than estimated or assumed in the NRC's current environmental analyses for the Pilgrim NPP. Second, the experience of the Fukushima accident shows that the accident mitigation measures relied on by the NRC are grossly inadequate to prevent the type of catastrophic damage at Pilgrim that has occurred at Fukushima. Finally, the Fukushima accident shows how corrosive and dangerous is the high level of secrecy that the NRC has maintained with respect to accident mitigation measures, thereby contributing to the use of ineffective measures at Fukushima.[210]

But Dr. Thompson's reasons for his belief fail completely to implicate any particularized threat to public safety at the Pilgrim plant; they fail to offer any specific information that is applicable to, or connects the Fukushima accidents to, the Pilgrim plant, and merely point to reasons why he *believes* consideration of information from the Fukushima accident would lead to revisions to the Pilgrim SAMA analysis that, in turn, could lead to other SAMAs becoming cost-effective. Dr. Thompson's statements respecting the impact of the information from Fukushima are bare and unsupported, and therefore speculative; they cannot provide the requisite support for reopening a closed record.[211]

We agree with Entergy and Staff that nothing averred by the Commonwealth, and nothing set out in the Declarations of Dr. Thompson, or in the Thompson Report, supports a proposition that the failure to consider the information from the accident at Fukushima raises any grave threat to public safety respecting the Pilgrim plant. Indeed, the Commission pointed out in ruling on the petitions to suspend all proceedings pending completion of its review of the events at Fukushima that it perceived no necessity to do so because it has other effective and timely mechanisms for implementation of modifications to regulations and plant requirements.[212] Thus we find that the Commonwealth contention fails to present any "exceptionally grave issue."

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[210] Thompson Declaration ¶ 15.

[211] Further, these statements are also precisely the sort of "speculation" that the Commission found insufficient support for the petitioners' request that licensing decisions be put on hold until the Commission has completed its Fukushima studies and developed appropriate information. *Callaway,* CLI-11-5, 74 NRC at 164-65.

[212] See, for example, the text accompanying notes 44-45 above, wherein we noted the Commission's view on this matter. The Commission further stated: "[W]e do not believe that an imminent risk will exist during the time period needed to apply any necessary changes to operating plants, whether a license renewal application is pending or not." *Callaway,* CLI-11-5, 74 NRC at 164. The Commission later stated: "Even for the licenses that the NRC issues before completing its review, any new Fukushima-driven requirements can be imposed later, if necessary to protect the public health and safety." *Id.* at 166. The Commission also stated:

(Continued)

For the foregoing reasons, we find that the Commonwealth contention is inadmissible for failure to satisfy the requirements of 10 C.F.R. § 2.326(a)(1).

Notwithstanding the foregoing finding, we address each of the other admissibility criteria.

(ii) THE REQUIREMENTS OF 10 C.F.R. § 2.326(a)(2)

As to whether the Commonwealth has satisfied the requirement that the motion must address a significant safety or environmental issue, determination hinges upon the definition of when a safety or environmental issue is "serious" enough to warrant reopening a closed record. The Commonwealth argues that the issue of potential cost-effectiveness of other severe accident mitigation alternatives rises to that level of seriousness because: (a) NEPA requires the NRC to take a hard look at environmental matters;[213] and (b) the SAMA is an alternatives examination performed by the Agency in fulfillment of its obligation under NEPA; and (c) the Council on Environmental Quality (CEQ) recognizes consideration of alternatives "'is the heart of the environmental impact statement'";[214] and (d) the NRC's Severe Reactor Accidents Policy Statement commits the Commission to "take all reasonable steps to reduce the chances of occurrence of a severe accident involving substantial damage to the reactor core and to mitigate the consequences of such an accident should one occur."[215]

Staff avers that the Commission has not explicitly set out a standard for when an environmental issue is significant enough to satisfy this requirement for reopening, but points us to an Atomic Safety and Licensing Appeal Board ruling that held that to demonstrate a significant safety issue, petitioners "'must establish either that uncorrected . . . errors endanger safe plant operation, or that there has

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> [W]e directed the Task Force to consider stakeholder input in the development of its recommendations. There will be further opportunities for stakeholder input as the agency's review proceeds, and public and stakeholder participation will be sought consistent with the established processes for any actions that we direct the NRC Staff to undertake.

Id. at 172. And the Commission emphasized its view that it can and will make appropriate adjustments to regulatory requirements again in its recent ruling in *Diablo Canyon. Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 457-58 [hereinafter *Diablo Canyon*].

[213] *See* Reply for Waiver Petition and Fukushima Contention at 7.

[214] *See id.* (quoting 40 C.F.R. § 1502.14). In this respect, we note that "longstanding [Commission] policy is that the NRC, as an independent regulatory agency, 'is not bound by those portions of CEQ's NEPA regulations' that . . . 'have a substantive impact on the way in which the Commission performs its regulatory functions.'" *Diablo Canyon,* CLI-11-11, 74 NRC at 444.

[215] *See* Reply for Waiver Petition and Fukushima Contention at 7-8 (quoting Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138, 32,139 (Aug. 8, 1985)).

been a breakdown of the quality assurance program sufficient to raise legitimate doubt as to the plant's capability of being operated safely.'" [216]

However, Entergy has pointed out that the Commission has indeed expressed the standard for when an environmental issue is "significant" for the purposes of reopening a closed record, equating them to its standards for when an EIS is required to be supplemented — there must be new and significant information that will "paint a 'seriously different picture of the environmental landscape.'"[217]

Here, the Commonwealth points to no environmental impact that would, or even might, arise from the failure to revise the SAMA analyses to consider information it asserts arose from the Fukushima accident. Rather, the Commonwealth avers that other SAMAs might become cost-effective if implemented — but indicates neither any particular positive environmental impact from any such implementation nor any specific negative environmental impact from failure to do so. The Commonwealth's contention can hardly be said, therefore, to paint the required "seriously different picture of the environmental landscape."[218] And neither the speculation by the Commonwealth and Dr. Thompson to the effect that other SAMAs might become cost-effective and that an operator's mitigative actions could be adversely affected by an accident environment, nor the Commonwealth's intimations regarding other potential alterations that might result from consideration of the Fukushima-derived information, can serve to bootstrap the contention into raising any such different environmental situation.[219] The Commonwealth's claims simply implicate no specific environmental impact changes.

For the foregoing reasons, we find that the Commonwealth contention is inadmissible for failure to satisfy the requirements of 10 C.F.R. § 2.326(a)(2).

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[216] NRC Staff Opposition to Fukushima Contention at 10-11 (quoting *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-940, 32 NRC 225, 243 (1990).

[217] Entergy Answer to Waiver Petition and Fukushima Contention at 28 (quoting *Private Fuel Storage II,* CLI-06-3, 63 NRC at 29 (holding that claimed additional environmental impacts were "not so significant or central to the FEIS's discussion of environmental impacts that an FEIS supplement (and the consequent reopening of our adjudicatory record) is reasonable or necessary")).

[218] Indeed the Commission reaffirmed its view of the appropriate threshold when it stated, in CLI-11-5, that the measure is "'[t]he new information must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned,'" concluding, as do we, that "[t]hat is not the case here, given the current state of information available to us." *Callaway,* CLI-11-5, 74 NRC at 167-68 (quoting *Hydro Resources, Inc.* (2929 Coors Road, Suite 101, Albuquerque, NM 871200), CLI-99-22, 50 NRC 3, 14 (1999)).

[219] As the Commission has oft repeated, and noted respecting the various petitioner assertions regarding information presently available from Fukushima, "our rules deliberately place a heavy burden on proponents of contentions, who must challenge aspects of license applications with specificity, backed up with substantive technical support; mere conclusions or speculation will not suffice . . . [and an] even heavier burden applies to motions to reopen." *Id.* at 169.

(iii) THE REQUIREMENTS OF 10 C.F.R. § 2.326(a)(3)

As to the requirement that the motion must *demonstrate* that a materially different result would be or would have been likely had the newly proffered evidence been considered initially, the "result" at issue in this proceeding is the outcome of the SAMA analysis.[220] The Commonwealth asserts that a materially different result would be likely because the NRC would have considered a much broader array of SAMAs, but offers only the bare conclusory statement of its expert to support its assertion, and such unsupported claims do not rise to the requisite level.[221] Notwithstanding its assertions that installation of a hardened vent or a filtered vent for the containment might become cost-effective,[222] the Commonwealth simply offers nothing which can reasonably be interpreted to "demonstrate" that other SAMAs would have been considered. To do so would have, at least, required the Commonwealth to provide some information indicating how much the mean consequences of the severe accident scenarios could reasonably be expected to change as a result of consideration of the Fukushima-derived information the Commonwealth proposes would alter the outcome of the cost-benefit balancing, together with at least some minimal information as to the cost of implementation of other SAMAs it believes might become cost-effective. This is not to say that the Commonwealth must prove its case at this point, but simply that the term "demonstrate" requires much more than the bare speculation and bare assertions offered by the Commonwealth.[223] And Dr. Thompson's assertions regarding hydrogen explosions, operator actions, and mitigative procedures and measures not only fail to address the actual consideration of those matters in the LRA, but fail to indicate how those would be affected by consideration of the proposed new information. Thus none of the information provided by either the Commonwealth or its expert, Dr. Thompson, demonstrates that any different result of the Pilgrim SAMA analysis could be obtained by consideration of the asserted new information.

The Commonwealth's contention has not demonstrated that a materially dif-

[220] In this case, the Commonwealth asserts that the different result it believes would be obtained is the consideration of other mitigation alternatives, Motion to Admit and Reopen at 11 — and we find that to be the appropriate measure for this case. We decline to make the overbroad determination that the "materially different result" is simply that the NRC would have considered the information from the Near-Term Task Force Report or the information that was presently available from the accidents at Fukushima in preparation of its SAMA analysis. To so require would elevate form over substance.

[221] *Id.* (citing Thompson Declaration ¶ 16 and Thompson Report § VI).

[222] *See id.*

[223] The Commission recently discussed its view that the required level of demonstration by petitioners of cost-effectiveness of other SAMAs is case and issue specific. *Diablo Canyon,* CLI-11-11, 74 NRC at 441-42. In our view, the issue sought to be litigated here requires considerably more than the bare speculation offered by petitioner.

ferent result would be or would have been likely had the newly proffered evidence been considered initially. We agree with Entergy and Staff that there is only speculation without any demonstration whatsoever that the results of the SAMA analysis would have been, or would have been likely to be, different had the information presented by Commonwealth regarding the Fukushima accident been considered.

For the foregoing reasons, we find that the Commonwealth contention is inadmissible for failure to satisfy the requirements of 10 C.F.R. § 2.326(a)(3).

(iv) THE REQUIREMENTS OF 10 C.F.R. § 2.326(b)

This portion of our regulations requires that the motion must be "accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the criteria of paragraph (a) of this section have been satisfied. . . . [and that] [e]ach of the criteria must be separately addressed [in that affidavit], with a specific explanation of why it has been met." We find that the Declaration of Dr. Thompson fails to specifically explain, to the level required by the provisions of section 2.326(b), two factors: (1) why a materially different result would have been likely had the information presently available from the Fukushima accident been considered *ab initio* in the Pilgrim SAMA analysis, or (2) why that information presents "a significant safety or environmental issue."[224]

As to the likelihood that a materially different result would be obtained, Dr. Thompson's Declaration states, in relevant part:

> As discussed in my Report at Section VI, I believe that a materially different result would be likely if the NRC were to thoroughly consider the implications of the Fukushima accident in its environmental analyses for the Pilgrim NPP. In particular, I believe that the NRC would consider a much broader and more rigorous array of severe accident mitigation alternatives (SAMAs) than have been previously considered, including systems for hydrogen control, containment venting, and replacement of high density spent fuel storage racks with low-density, open-frame racks. Also, in view of the high risk of a radioactive release at Pilgrim, any accident-mitigation measure or SAMA that is credited for the future licensed operation of the Pilgrim NPP should be incorporated in the plant's design basis.[225]

But this sets out no factual or technical basis; it merely represents a statement of belief on the part of Dr. Thompson. It fails to recognize or address the methodology

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[224] We note that Entergy and Staff have raised material issues regarding the qualifications of Dr. Thompson and the validity of the methodology he proposes be used. Because of our findings regarding the substance of the Commonwealth's arguments and Dr. Thompson's statements, we find it unnecessary to address those issues.

[225] Thompson Declaration ¶ 16.

by which the probabilities of the various chains of events are developed and it fails to discuss how those methodologies might (let alone should) be adapted to utilize the macroscopic information it terms "actual" probabilities of the occurrence of severe accidents that is available from worldwide macroscopic experience. It makes no reference to, and presents no discussion of, how the Pilgrim (or any other) SAMA analysis is performed or how it could be expected that the mean consequences of the spectrum of accident scenarios analyzed for Pilgrim in its SAMA analysis could be so altered as to make additional SAMAs cost-effective to implement. Although Dr. Thompson mentions other mitigative mechanisms that he believes would be considered, he fails to address their cost — and that is integral to providing a factual or technical basis for the assertion because the present Pilgrim SAMA analysis (which is set out in the LRA), plainly indicates both the cost of the most costly implemented SAMA and that the next most costly not-implemented SAMA that was considered has a cost approximately twice the most costly one that was implemented.[226] To provide a factual basis for the assertion that a materially different result would be obtained requires a comparison of at least estimates of the costs of implementation of the mitigative mechanisms Dr. Thompson suggests might have been considered to the stated costs of implemented SAMAs.[227] And to perform the analysis would require information regarding how much the mean consequences would be altered by consideration of the facts Dr. Thompson asserts are available from the Fukushima accident, because that provides the foundation for the numerical value for the "benefit" against which the cost must be balanced. In particular, Dr. Thompson asserts that there are facts regarding the CDF and the likelihood of hydrogen explosion that should be incorporated in the SAMA analysis, but he fails to even

[226] *E.g.,* Exh. ENT000001, Testimony of Dr. Kevin R. O'Kula and Dr. Steven R. Hanna on Meteorological Matters Pertaining to Pilgrim Watch Contention 3 (Jan. 3, 2011) at A47.

[227] We reject the premise that the Agency has an obligation under NEPA to consider effects of the accidents at Fukushima when there has been no linkage made between those events and the plant whose license is at issue in this proceeding. While NEPA requires the Agency to "take a hard look" at environmental effects of its pending decision, we see nothing raised here that implicates any environmental impact. Further, although the NRC performs its SAMA analysis in fulfillment of its obligations under NEPA, the mitigation alternatives it examines in its SAMA cost-benefit analyses all regard severe accident events which are beyond the design basis of the plant, and therefore have annual probability of occurrence of less than one in a million per year. We note that the NRC more than a decade ago declined to label such events as remote and speculative, which would result in their not being required to be considered under NEPA, because the NRC felt at the time it did not have the database to so determine. But it appears to us that by requiring any chain of events that has an annual frequency of occurrence greater than one in a million to be included within the design basis, the Commission has *de facto* made the frequency of occurrence of all other events (including those resulting in severe accidents) to be less than one in a million per year — a value so low as to certainly not be "reasonably foreseeable" (which would require such events to be considered under NEPA) but also to be reasonably considered remote and speculative in this context.

speculate as to how (or how much) those might alter the consequences of the probabilistic computation of the consequences from the entire spectrum of severe accidents considered in the Pilgrim SAMA analysis. And those facts/costs are critical to the basis for his speculation. Thus, we find his Declaration fails to provide the requisite factual and/or scientific basis for the claim that a materially different result would have been likely.

In addition, Dr. Thompson states in his Declaration, as to whether the information available from the Fukushima accident presents a significant safety or environmental issue, the following:

> I also believe the Commonwealth's contention addresses exceptionally grave environmental issues, for three reasons. First, the Fukushima accident shows that a severe reactor and/or spent-fuel-pool accident is significantly more likely than estimated or assumed in the NRC's current environmental analyses for the Pilgrim NPP. Second, the experience of the Fukushima accident shows that the accident mitigation measures relied on by the NRC are grossly inadequate to prevent the type of catastrophic damage at Pilgrim that has occurred at Fukushima. Finally, the Fukushima accident shows how corrosive and dangerous is the high level of secrecy that the NRC has maintained with respect to accident mitigation measures, thereby contributing to the use of ineffective measures at Fukushima.[228]

This also is in the nature of a statement of belief, and omits to provide facts or scientific explanation that can logically support his conclusory statement of belief that failure to include the information he asserts is now revealed by the Fukushima accident creates an exceptionally grave environmental issue. The question of what threshold is required to create an "exceptionally grave" environmental issue has been discussed by the Parties, and we are not persuaded by the Commonwealth's view that the fact that consideration of alternatives is a very important requirement of NEPA[229] somehow elevates the issue raised here to a "grave" issue. Indeed

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[228] Thompson Declaration ¶ 15.

[229] The Commonwealth asserts that:

> According to the Staff, a SAMA analysis "has no direct safety or environmental significance" because it "merely augments existing programs to identify mitigation alternatives that could 'further reduce the risk at a plant that ha[s] no identified safety vulnerabilities.'" The Staff's position that SAMAs are legally insignificant is incorrect as a matter of law. As the Council on Environmental Quality recognizes, consideration of alternatives "is the heart of the environmental impact statement." Consistent with NEPA's requirement to consider alternatives, the NRC's Severe Reactor Accidents Policy Statement commits the Commission to "take all reasonable steps to reduce the chances of occurrence of a severe accident involving substantial damage to the reactor core and to mitigate the consequences of such an accident should one occur."

(Continued)

the Commonwealth offers nothing to indicate that there is anything "grave," or any potential grave environmental issue, associated with the possibility that there might turn out to be other alternatives (plant alterations) that would be cost-effective to implement to ameliorate effects of accidents that are beyond the design basis.[230] The Commonwealth has offered no link, and Dr. Thompson offers no link, between the issues it or he raises and an environmental issue associated with the implementation (or lack of implementation) of any Severe Accident Mitigation Alternative. Severe accidents are, by their very definition, beyond the design basis of the plant. If the Commonwealth intended to challenge the design basis by its assertions that the probability of a severe accident is much higher than is assumed for the purposes of the NRC's required SAMA analyses, such a challenge would have been inadmissible in (because a challenge to NRC regulations is outside the scope of) this proceeding. If that is not the Commonwealth's challenge, then this Declaration (and its accompanying Report) fails to provide the requisite factual and/or scientific basis for the claim that a grave environmental issue is raised by the Motion.

For the foregoing reasons, we find that the Declaration of Dr. Thompson fails to provide the requisite factual and/or technical bases for the movant's claim that the criteria of paragraph (a) of section 2.326 have been satisfied.

b. The Commonwealth Has Not Satisfied the Requirements for a Nontimely Filed Contention Set Out in 10 C.F.R. § 2.309(c)

The Commonwealth bases its assertion that it satisfies the requirements of section 2.309(c)(i) (good cause) because it filed its contention while information about the accident is continuing to be released.[231] However, the actual singular foundation for this new contention is the argument (discussed with respect to section 2.326(a)(1) and below respecting section 2.309(f)(2)(ii) and (iii)) based upon worldwide "direct experience" regarding the overall (macroscopic) frequency of occurrence of core-damaging accidents. But, as we discussed above, this foundational argument does not rest upon new and materially different information made available anew by the accident at Fukushima. The Commonwealth could

> Moreover, the Staff misses the point of the Commonwealth's contention, which is that new information shows the existence of previously unconsidered accident vulnerabilities that increase the environmental impacts of re-licensing Pilgrim and therefore the outcome of the cost-benefit analysis of alternatives.

Reply for Waiver Petition and Fukushima Contention at 7-8 (internal citations omitted).

[230] We note that Commonwealth has observed the Near-Term Task Force Report's suggestion that some severe accidents should be included in the design basis, Motion to Supplement at 5, but that result must await scientific investigation and its outcome.

[231] Motion to Admit and Reopen at 6.

(and should) have filed this contention at the outset of this proceeding. Thus we find that this contention fails to satisfy the good cause requirements of section 2.309(c)(i).

In addition, balancing the remaining factors of section 2.309(c), we are persuaded that the addition of a hearing on the subject matter of this contention will unduly broaden the issues presently being considered[232] and undoubtedly materially delay this proceeding. Thus we find that factor (vii) weighs heavily against granting admission of this contention.

For the foregoing reasons, we find that the contention fails to satisfy the requirements of 10 C.F.R. § 2.309(c).

c. The Commonwealth's Proposed Contention Fails to Satisfy the Requirements of 10 C.F.R. § 2.309(f)(1) and 10 C.F.R. § 2.309(f)(2) and Therefore Is Inadmissible Even if the Requirements for Reopening Had Been Met

To begin with, we find that material portions of this contention (challenges to spent fuel pools, challenges to the NRC's assumptions about operators' capability to mitigate an accident at Pilgrim, challenges to EDMGs, challenges to the NRC's excessive secrecy regarding accident mitigation measures, challenges to the NRC's previous rejection of the Commonwealth's concerns regarding the environmental impacts of high-density pool storage of spent fuel, assertions of a need to implement filtered vented containment, and suppositions/speculation regarding the effectiveness of hydrogen control mechanisms) all fall outside the scope of this proceeding and therefore are inadmissible because they fail to satisfy the requirements of section 2.309(f)(1)(iii).

Thus all that remains to consider in the Commonwealth's contention are the assertions respecting the CDF and its potential impact upon the SAMA cost-benefit balancing.[233] As to the requirements of section 2.309(f)(1)(iv), the only possible relevance of this contention to the findings the NRC must make regards the SAMA cost-benefit analysis.[234] But the Commonwealth has made

[232] This is particularly evident given the status of this proceeding was, at the time this contention was submitted, simply to address the narrow portion of Pilgrim Watch's Contention 3 remanded to us, as to which we have already issued a definitive ruling, and address five new contentions filed by Pilgrim Watch since the remand, all of which were previously resolved or are resolved by this Order.

[233] As we noted above, Commonwealth's assertions regarding the cost-effectiveness of mitigation mechanisms, as well as effectiveness of operation or operability of the DTVs, are necessarily resultant from the core-damaging event premise.

[234] As we noted above, we decline to find that the "determination the NRC must make" is a determination to consider, under NEPA, information presently available from the accidents at *(Continued)*

only the bare speculation (supported by a similar speculation on the part of its expert) that they believe that "the NRC would consider a much broader and more rigorous array of severe accident mitigation alternatives (SAMAs) than have been previously considered."[235] This plainly fails to satisfy the requirement of section 2.309(f)(1)(iv) that the contention must "demonstrate" that the issue raised is material to the NRC's decision; the speculative assertions of the Commonwealth and its expert simply do not rise to the level of demonstrating the matter. Therefore we find that the Commonwealth's contention fails to satisfy the requirements of section 2.309(f)(1)(iv).

Finally, as to the requirements of section 2.309(f)(1)(vi), we find that neither the Commonwealth's pleadings nor the Declaration and Report of Dr. Thompson shows that a genuine dispute exists with the applicant on a material issue of law or fact. First, for the fact to be "material," it must affect the NRC's SEIS as it relates to SAMAs, and neither the Commonwealth nor Dr. Thompson has indicated with any specificity how the SAMA analysis results could be affected. Rather the pleadings speculate as to changes that might be found, and we find that fails to provide the requisite sufficient information that would "show" a dispute. Further, neither the Commonwealth nor Dr. Thompson point to or reference any specific portion of the application that is disputed, simply asserting that the SAMA results might be different, and neither indicates any method by which the macroscopic data on the worldwide frequency of occurrence of core-damaging events might be utilized to modify the event-chain analyses used by Pilgrim in its SAMA analysis. The bare assertions based upon the "actual" (macroscopic) information, that the CDFs are erroneous, simply does not provide the requisite link to the Pilgrim plant or the SAMA analysis performed for it. If the Commonwealth and Dr. Thompson meant, in the alternative, to point to an omission of consideration of data from the SAMA input, as they might have intended to imply in their reply,[236] they are certainly capable of so doing and have failed.[237] From either

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Fukushima or from the Near-Term Task Force Report. The NRC's determination at issue here is solely that of which SAMAs are cost-beneficial to implement for this plant. If and when Fukushima-derived information sheds new light on the Pilgrim SAMA analysis, the NRC has adequate mechanisms for addressing its regulatory impact.

[235] Motion to Admit and Reopen at 11.

[236] *See* Reply for Waiver Petition and Fukushima Contention at 3.

[237] The situation here is directly analogous to that addressed by the Commission in its very recent ruling respecting a challenge raised in the license renewal application for Diablo Canyon. There the Commission held:

> Even assuming that [petitioner] intended to challenge the discussion of mitigation measures in PG&E's Environmental Report, [petitioner]'s unsupported statement . . . falls short of the information required to show the existence of a genuine dispute. . . . It is [petitioners]'s

(Continued)

perspective, the Commonwealth's contention fails to satisfy the requirements of section 2.309(f)(1)(vi).

For the foregoing reasons, we find that the Commonwealth's Proposed New Contention fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(1) and therefore is inadmissible even if the requirements for reopening and for filing of a nontimely contention had been met (which we found were not).

Finally, had the requirements of *10 C.F.R. § 2.326 respecting reopening a closed record been, as the Commonwealth asserts, inapplicable, the requirements of 10 C.F.R. § 2.309(f)(2) would have applied. As to the requirements of 10 C.F.R. § 2.309(f)(2)(i),* the Commonwealth asserts that the new information is derived from the Fukushima accident, and because such information was not previously available, this requirement would have been satisfied.

As to the requirements of 10 C.F.R. § 2.309(f)(2)(ii) that the information on which the contention is based is materially different than information previously available, as we noted above the Commonwealth asserts a material difference because their new contention is based primarily on the actual occurrence and experience of a radiological accident, as contrasted with predictions of the behavior of an accident based on probabilistic risk assessment. The Commonwealth asserts this to be materially different from information that was available at the outset of this license renewal — particularly with respect to the predominant assertion by the Commonwealth that the Fukushima accident provides new information that the CDF used in the Pilgrim SAMA analysis was erroneously low because it failed to use actual experience on the occurrence of severe accidents worldwide. We disagree. For the reasons set out in our ruling on section 2.326(a)(1), we find that the contention does not rest upon new materially different information that is timely presented (because the challenge respecting actual vs. theoretical CDF should have been raised at the outset based upon information from events that occurred well before the accidents at Fukushima). Therefore, this contention fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(2)(ii).

As to the requirements of 10 C.F.R. § 2.309(f)(2)(iii) that the contention be filed in a timely fashion based on the availability of the subsequent information, the Commonwealth asserts that, while it might have been preferable to await a more full understanding of the information presently becoming available continuously from the evolving situation at Fukushima, there is sufficient information upon which to proceed to challenge the SAMA analysis for Pilgrim. Staff takes the view that because the information is continuing to be developed it is premature to litigate the effects and therefore the contention is not timely. As with the requirements

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> responsibility . . . to put others on notice as to the issues it seeks to litigate in the proceeding. We should not have to guess the aspects of the SAMA analysis that [petitioner] is challenging.

Diablo Canyon, CLI-11-11, 74 NRC at 457 (internal footnotes omitted).

of 10 C.F.R. § 2.309(f)(2)(ii), we find that, because the single kernel upon which this contention rests is the premise that Entergy and Staff should use "direct experience" for severe accident probabilities,[238] and that the direct experience demonstrates the CDF probabilities used in the Pilgrim SAMA analyses are too low, since the same direct experience would plainly have permitted precisely the same challenge at the outset of this proceeding, the new information put forth by the Commonwealth is not materially different from the corresponding information available at the outset of this proceeding.[239]

For the foregoing reasons, we find that the contention fails to satisfy the requirements of 10 C.F.R. § 2.309(f)(2)(iii).

We therefore find that, even if the reopening requirements had not been required to be satisfied (which we find not to be the case), this contention fails to satisfy the timeliness requirements of 10 C.F.R. § 2.309(f)(2).

Finally, we must note that our decision today cannot be based upon the absence of sufficient information to disprove that there could be at some time in the future sufficient information to lead to significantly different results of the Pilgrim environmental analysis. To do so would require proof of a negative and plainly stand adjudicative principles on their head.

Further, as to the question of whether the events at Fukushima present considerations for Pilgrim that must be weighed under NEPA, the black letter law is that NEPA requires consideration of reasonably foreseeable events. While not drawing a definitive line regarding when an event is reasonably foreseeable, the common law has addressed a boundary on the other side of the same coin, finding generally that NEPA does not require consideration of remote and speculative matters.[240] As we discussed at length above, there is presently absolutely no

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[238] It is apparent that, in performance of SAMA analysis, the weighting of the consequences of any severe accident, and the sort of mitigation measures (such as operator activation of the DTVs) that might be effectively deployed to address such accidents, are directly and singularly dependent upon the particular probabilities used in the SAMA analysis for the particular scenarios. Thus, if the probabilities are incorrect, the contribution of the consequences will be inaccurate and the effectiveness of other mitigation measures will be altered. And, stated in the inverse, unless the probabilities are in error, the effectiveness of various mitigation mechanisims will not be called into question.

[239] In this regard, the Commonwealth now asserts that "the Staff misses the point of the Commonwealth's contention, which is that new information shows the existence of previously unconsidered accident vulnerabilities that increase the environmental impacts of re-licensing Pilgrim and therefore the outcome of the cost-benefit analysis of alternatives," Reply for Waiver Petition and Fukushima Contention at 8, but we note that the contention alleges no particularized vulnerability nor does it identify any new and materially different information other than the assertions respecting CDF.

[240] There are myriad examples of application of this principle in, for example, codes implemented by agencies at various governmental levels requiring consideration, in the design of structures, of floods and earthquakes with a frequency of occurrence of more than once in a hundred years. This is certainly analogous to the "design basis" requirements of the NRC regarding severe accidents.

information presented from the Fukushima accidents that has been indicated to have any impact on the Pilgrim plant or its environmental impact, and certainly, therefore, has implicated nothing reasonably foreseeable for Pilgrim. It is pure speculation to aver that there is, or that there will be, at some unknown and unknowable time in the future, new significant information arising from those accidents relevant to Pilgrim running so afoul of the requirement of NEPA and our regulations today so as to require delay of this license renewal decision.[241]

III. CONCLUSION AND ORDER

For the foregoing reasons, we DENY the Commonwealth's Stay Request and its Waiver Request, and, as we noted above, we GRANT the Commonwealth's Motion to Supplement, considering the information presented therewith for its value to this matter, and we find that the Commonwealth's Fukushima Contention filed June 2, 2011, fails to satisfy the requirements of our regulations for reopening a closed record, for admission of a nontimely submitted contention, and the strict requirements for an admissible contention, each of which failures in and of itself would require that we deny the Commonwealth's Motion to Admit. It is, this 28th day of November, 2011, ORDERED that the Commonwealth's Stay Request and Waiver Request, and its Motion to Admit a proposed new contention are *therefore* DENIED, and the evidentiary record in this proceeding remains closed.

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[241] As the Commission has noted in ruling on petitioners' NEPA-related assertions, there is simply insufficient information available at this time from Fukushima, and the NRC's processes are intended to accommodate the raising of concerns when and if there is.

> [T]he rules cited by the rulemaking petitioners that reach "generic conclusions" regarding severe reactor and spent fuel accidents appear to be those that pertain to license renewal. . . . As we noted in the *Pilgrim* and *Vermont Yankee* matters, after considering the rulemaking petitions, the NRC will make a decision whether to deny the petitions, or proceed to make revisions to Part 51. Depending on the timing and outcome of the NRC Staff's resolution of the rulemaking petitions, the Staff itself potentially could seek the Commission's permission to suspend one or more of the generic determinations in the license renewal environmental rules, and include a new analysis in pending, plant-specific environmental impact statements.

Callaway, CLI-11-5, 74 NRC at 174-75 (internal citations and footnotes omitted). And the Commission repeated this message in an even more recent ruling, stating

> NRC will develop lessons learned, as it has in the past — that is, the NRC will "evaluate all technical and policy issues related to the event to identify potential research, generic issues, changes to the reactor oversight process, rulemakings, and adjustments to the regulatory framework that should be conducted by NRC." Accordingly, our comprehensive evaluation includes consideration of those facilities that may be subject to seismic activity or tsunamis . . . . Further, that evaluation will include consideration of lessons learned that may apply to spent fuel pools that are part of the U.S. nuclear fleet.

Diablo Canyon, CLI-11-11, 74 NRC at 453 (citation omitted).

It is so ORDERED.

FOR THE ATOMIC SAFETY
AND LICENSING BOARD[242]

Dr. Paul B. Abramson
ADMINISTRATIVE JUDGE

Dr. Richard F. Cole
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 28, 2011

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[242] Judge Young concurs with our decision in results only. Her views are set forth on the following pages.

Administrative Judge Ann Marshall Young, Concurring in Results Only

I would not admit the Commonwealth's contention for the reason that I find it to be premature, based on the Commission's decision in *Union Electric Co.* (Callaway Plant, Unit 2) (hereinafter CLI-11-5),[1] issued September 9, 2011. I would permit the filing of Fukushima-related contentions when relevant information becomes ripe for consideration.

The Commission in CLI-11-5 addressed the petitions of a number of parties to suspend, and take certain other actions with respect to, various nuclear power plant licensing proceedings (including Pilgrim) based on the March 2011 accident at the Fukushima Dai-ichi plant in Japan. The Commission declined to suspend the proceedings, finding among other things that "the mechanisms and consequences of the events at Fukushima [we]re not yet fully understood" and "the full picture of what happened at Fukushima [wa]s still far from clear" on September 9, 2011, thus warranting a conclusion that a request for analysis whether the Fukushima events constitute "new and significant information" under NEPA was then "premature."[2] Although the Commission in these statements was addressing generic issues, and expressly stated that in individual proceedings "litigants may seek admission of new or amended contentions,"[3] its prematurity analysis would reasonably seem also to be applicable in individual proceedings at this time.

I note that, subsequent to the July 12, 2011, issuance of the Near-Term Task Force Report,[4] the Commission directed the NRC Staff to "implement without delay" certain of the Task Force's recommendations.[5] Given, however, that the deadline set by the Commission for completion of this task is the year 2016,[6] this would not seem to be sufficient to change the Commission's analysis on prematurity as stated in CLI-11-5, or otherwise suggest that the Commonwealth's contention would not fall within its ambit.[7] I therefore conclude that the Commonwealth's new Fukushima-related contention is premature at this time.

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[1] *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141 (2011).

[2] *Id.* at 166-67.

[3] *Id.* at 170.

[4] *See* Dr. Charles Miller et al., Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insight from the Fukushima Dai-ichi Accident (July 12, 2011) (ADAMS Accession No. ML111861807).

[5] Staff Requirements Memorandum — SECY-11-0124 — Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report (Oct. 18, 2011) at 1 (ADAMS Accession No. ML1129115710).

[6] *Id.*

[7] I would observe, however, that this does not necessarily mean that information on Fukushima could not become sufficiently developed to warrant the filing of new contentions prior to 2016.

In view of this conclusion, I do not address the various regulatory criteria for reopening the record and admitting the new contention, or for waiving rules relating to spent fuel pool accidents. Nor do I address the Commonwealth's May 2, 2011, Motion to Stay, given that issuance of CLI-11-5 rendered it moot.

I do, however, take this opportunity to touch upon two concepts that I find warrant some attention, given that they have arisen more than once in this proceeding, with respect to more than one contention and more than one regulatory requirement, and may bear on the future conduct of this proceeding. The first of these concepts is that of whether information is "new," so as to make a contention based on it timely; this comes up with any contention filed after the beginning of a proceeding under 10 C.F.R. § 2.309(c) or (f)(2), and also in determining whether a previously closed proceeding should be reopened under 10 C.F.R. § 2.326. The second is the concept of a matter being significant enough to be considered, in one way or another, in a proceeding — a concept that touches on various criteria for admissibility of contentions under 10 C.F.R. § 2.309, the criteria for reopening under section 2.326, as well as requirements under NEPA and NEPA-related NRC law and regulation.

The newness/timeliness issue presents itself with respect to the "direct experience" argument of the Commonwealth. The Commonwealth argues through its expert that data from the body of actual experience with respect to severe accidents at nuclear power plants, now including the Fukushima accident, can provide a "reality check" for PRA estimates of core damage probabilities in the Pilgrim SAMA analysis.[8] Although, as my colleagues find, this argument might certainly have been raised earlier with respect to experience from all events other than the Fukushima accident, information from Fukushima is clearly "new" information, whatever its significance may be with respect to the Pilgrim SAMA analysis, such that making the argument insofar as it takes into account Fukushima could not have been done earlier. To the same effect as I stated in my Dissent and Concurrence in LBP-11-23, the fact that a contention based on "new" information is also supported by previously existing information "negates neither the 'new-ness' of the Fukushima-related information, nor the value of either sort of information, whatever its worth otherwise."[9]

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[8] Commonwealth of Massachusetts' Contention Regarding New and Significant Information Revealed by the Fukushima Radiological Accident (June 2, 2011), Attached Report of Gordon R. Thompson, Institute for Resource and Security Studies, New and Significant Information from the Fukushima Daiichi Accident in the Context of Future Operation of the Pilgrim Nuclear Power Plant (June 1, 2011) at 15; *see id.* at 14-18.

[9] LBP-11-23, 74 NRC 287, 321, Administrative Judge Ann Marshall Young, Concurring in Part and Dissenting in Part (2011).

I note, moreover, regarding the SAMA analysis itself, that, as my colleagues point out, this "is a probabilistic safety analysis whereby probabilities are developed and assigned to each event in the

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With respect to the issue of significance, I agree that Dr. Thompson is less specific than might be desired in his analysis of the significance of Fukushima-related information and its impact on the Pilgrim SAMA analysis. And of course, as suggested by the Commission in CLI-11-5, the full picture of the Fukushima accident and its aftermath is not yet clear, such that there is insufficient information available at this time to conclude that consideration of issues relating to the Fukushima accident *would* clearly lead to significantly different analyses of environmental consequences in the Pilgrim EIS (including in the SAMA analysis summarized therein). However, there is obviously at this time also insufficient information to conclude that consideration of relevant Fukushima-related issues *could not* lead to significantly different analyses of the environmental consequences of renewing the Pilgrim operating license.[10] I find that the Commonwealth has shown at least

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series and those are utilized, in connection with all other event series analyzed, to develop overall release probabilities." Majority Decision at 747 n.204. Further, as NRC Staff experts described the SAMA analysis earlier in this proceeding:

> The PRA for a commercial power reactor has traditionally been divided into three levels: level 1 is the evaluation of the combinations of plant failures that can lead to core damage; level 2 is the evaluation of core damage progression and possible containment failure resulting in an environmental release for each core-damage sequence identified in level 1; and level 3 is the evaluation of the consequences that would result from the set of environmental releases identified in level 2. All three levels of the PRA are required to perform a SAMA analysis.

NRC Staff Testimony of Nathan E. Bixler and S. Tina Ghosh Concerning the Impact of Alternative Meteorological Models on the Severe Accident Mitigation Alternatives Analysis, Exh. NRC000014 (June 2, 2011), A11 at 7-8.

How the probabilities used in the analysis are developed and assigned to each input event in a series is key, as the development and assigning of probability values to a large number of possible equipment failures, operator actions, etc., determine the outcome probabilities of the overall analysis. If any of the input values are based on incorrect or incomplete information on past failures, for example, this could call into question the overall analysis and its results. It would thus seem likely that, once information from Fukushima is available, it might well play into the input values used in a SAMA analysis for a Mark I boiling water reactor of the sort that failed at Fukushima, such as the Pilgrim reactor. Of course, a SAMA analysis includes conservatisms that account for some uncertainties, but notwithstanding these conservatisms, until it is known how the inputs into the analysis might change as a result of information learned from Fukushima, it is unclear what the results of the overall analysis might be.

The Pilgrim SAMA analysis is summarized in the EIS and constitutes part of the basis for the conclusions stated therein. *See* NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants," Supp. 29, Regarding Pilgrim Nuclear Power Station, Final Report (July 2007) (ADAMS Accession No. ML063260173) [hereinafter EIS]; *see id.* Ch. 5.

[10] Thus, there is similarly insufficient information to conclude that any and all possible impacts of Fukushima-related information on the analysis of environmental consequences at Pilgrim would be "remote and speculative," such that no further NEPA analysis would be required. What is "reasonably foreseeable" with respect to Fukushima and the impact of information arising out of it on environmental analyses relating to Pilgrim would also seem to be an open question at this point.

some likelihood that information on Fukushima could have some such impacts,[11] such that it cannot be said that consideration of Fukushima-related issues "could not affect" the ultimate decision on the renewal application.[12]

For these reasons, and to ensure basic fairness, I would permit the Commonwealth to file new Fukushima-related contentions at such time as relevant information may be ripe for consideration.[13]

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[11] I also find that Pilgrim Watch has shown a reasonable likelihood of such impacts. *See* LBP-11-23, 74 NRC 287, Administrative Judge Ann Marshall Young, Concurring in Part and Dissenting in Part.

[12] *Limerick Ecology Action, Inc. v. NRC,* 869 F.2d 719, 737 (3d Cir. 1989).

[13] Indeed, it would appear that Fukushima-related issues must be addressed in some manner in this proceeding prior to its conclusion and a final determination on the license renewal request, given (1) the reasonable likelihood that relevant Fukushima-related information *could* in this proceeding lead to significantly different analyses and/or conclusions in the EIS and SAMA analysis; and (2) NEPA's "'dual purpose' [of] ensur[ing] that federal officials *fully* take into account the environmental consequences of a federal action *before* reaching major decisions, and [ ] inform[ing] the public, Congress, and other agencies of those consequences." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348 (2002) (emphasis added) (citing *Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 349 (1989); *Baltimore Gas and Electric Co. v. Natural Resources Defense Council, Inc.,* 462 U.S. 87, 97 (1983); *Dubois v. U.S. Department of Agriculture,* 102 F.3d 1273, 1291 (1st Cir. 1996)).

As suggested in the text, the information to date from Fukushima is insufficiently clear to support a conclusion that the Pilgrim EIS could fairly be said to "fully take into account the environmental consequences" of renewing the Pilgrim operating license, in the absence of consideration of Fukushima-related matters. This is not to say that a decision on the current contention could be based on the absence of information, but rather simply to comment on the prematurity of Fukushima-related issues at this time, including their effect, one way or the other, on individual plant SAMA analyses and environmental impact statements. In order, however, for license renewal to be a meaningful process with respect to the Pilgrim plant with its Mark I boiling water reactor, and in order to assure that the Commonwealth and its citizens have their understandable concerns and interests addressed, the impact of Fukushima-related issues on the pending application should be analyzed at a time and in a manner that fully takes into account, not "every alternative device and thought conceivable by the mind of man," *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.,* 435 U.S. 519, 551 (1978), but "every *significant* aspect of the environmental impact" of the sought license renewal, *id.* at 553 (emphasis added), including Fukushima-related impacts, *prior to* an ultimate decision on the application.

It is true that, but for the remand of Contention 3 in CLI-10-11, 71 NRC 287 (2010), the Pilgrim renewal application would no doubt have been granted some time ago. But this did not occur, and it happened that the Fukushima accident occurred 2 days after oral argument on the remanded Contention 3. At that point, or soon thereafter as the severity of the accident began to become apparent (even if only on a preliminary basis), matters relating to severe accidents involving Mark I BWRs, to their mitigation, and to the environmental impacts of continued operation in the very densely populated coastal area where Pilgrim is located, took on added significance.

It is unclear exactly how Fukushima-related issues will be addressed in every current licensing proceeding. Ultimately this is a question that is to some extent case-specific. *See supra* text accompanying note 3. However, it may be observed that, if the EIS and SAMA analysis are significant

(Continued)

enough matters that they are *required* to be completed in connection with the license renewal application itself, logic dictates that they are significant enough that they should *accurately* address *all truly significant issues* that might reasonably be expected to be relevant to the application, *prior to* action on the application, even if meaningful consideration might need to await some additional development of information from Fukushima. This would seem to be particularly appropriate with respect to proceedings involving Mark I boiling water reactors.

For the preceding reasons, and because the reactor at the Pilgrim plant is a Mark I BWR like the Fukushima reactors, I find this proceeding to be one that would not fall within those cases involving "licenses that the NRC issues before completing its [Fukushima] review." The existing Pilgrim operating license will, of course, remain in effect until issuance of an ultimate decision on the renewal application. Thus any possible harm to the Applicant, resulting from allowing for consideration of Fukushima-related matters in some manner prior to a final decision on the application, should be minimized. Moreover, it would seem to be in *all* parties' interests to timely assure either that Fukushima-related information would not negatively impact the Pilgrim EIS and/or SAMA analysis and conclusions, or that any potential problems could be effectively identified, addressed, and, as appropriate and possible, mitigated.

In any event, it would be desirable to provide some reasonable mechanism for informing parties when the time is ripe for filing new Fukushima-related contentions. *See Callaway,* CLI-11-5, 74 NRC at 171.

Cite as 74 NRC 768 (2011) **LBP-11-36**

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Alan S. Rosenthal, Chairman
Dr. Gary S. Arnold
Dr. William H. Reed

In the Matter of

LUMINANT GENERATION COMPANY LLC (Comanche Peak Nuclear Power Plant, Units 3 and 4)	**Docket Nos. 52-034-COL 52-035-COL (ASLBP No. 11-914-02-COL-BD01)**
ENERGY NORTHWEST (Columbia Generating Station)	**Docket No. 50-397-LR (ASLBP No. 11-912-03-LR-BD01)**
SOUTHERN NUCLEAR OPERATING COMPANY (Vogtle Electric Generating Plant, Units 3 and 4)	**Docket Nos. 52-025-COL 52-026-COL (ASLBP Nos. 11-914-02-COL-BD01, 11-913-01-COL-BD01)**
DUKE ENERGY CAROLINAS, LLC (William States Lee III Nuclear Station, Units 1 and 2)	**Docket Nos. 52-018-COL 52-019-COL (ASLBP No. 11-913-01-COL-BD01)**

November 30, 2011

MEMORANDUM AND ORDER
(Denying Motions to Reinstate Contention)

1. On October 18, 2011, these three Licensing Boards addressed collectively in LBP-11-27[1] (1) motions to reopen four closed proceedings involving applications for combined licenses (COLs) for certain proposed nuclear facilities;[2] and (2) a petition to intervene in a not previously established proceeding involving the application of an existing facility for renewal of its current operating license.[3] The motions and petition had an identical purpose: the admission into each of the five proceedings of a common environmental contention said to arise from an NRC Task Force report. That report focused upon the March 11, 2011 event at the Fukushima Dai-ichi Nuclear Power Station in Japan in which, as a consequence of a magnitude 9.0 earthquake and an ensuing tsunami, that facility sustained very serious damage.[4] The contention sought to be admitted would have it that the "new and significant environmental implications" of the findings and recommendations contained in the Task Force report had to be addressed by the Commission in an environmental impact statement.[5]

For the reasons developed in LBP-11-27, we denied all four reopening motions as well as the intervention petition. In a nutshell, we concluded that the common contention was prematurely advanced.[6]

That conclusion rested in turn largely upon the teachings of a September 9, 2011 Commission decision (CLI-11-5), that examined a series of petitions seeking the

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[1] LBP-11-27, 74 NRC 591 (2011).

[2] Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 10, 2011) [hereinafter Bell Bend Motion to Reopen]; Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) [hereinafter Comanche Peak Motion to Reopen]; Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) [hereinafter Vogtle Motion to Reopen]; Motion to Reopen the Record and Admit Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) [hereinafter William States Lee Motion to Reopen].

[3] Petition for Hearing and Leave to Intervene in Operating License Renewal for Energy Northwest's Columbia Generating Station (Aug. 22, 2011) [hereinafter Columbia Motion to Intervene].

[4] Recommendations for Enhancing Reactor Safety in the 21st Century, The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident (July 12, 2011).

[5] Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 10, 2011) at 11. While this particular contention was filed in the *Bell Bend* proceeding, we note that the contentions submitted in all five proceedings are substantially similar, and therefore cite to only one.

[6] LBP-11-27, 74 NRC at 601.

suspension of adjudicatory, licensing, and rulemaking activities and other relief in light of the Fukushima event.[7] Among other things, CLI-11-5 explicitly assessed the current significance of the Task Force's findings and recommendations. The outcome of that examination was the denial of virtually all of the requested relief on the ground that it was prematurely sought.[8] As explained in LBP-11-27, the basis assigned for that outcome applied equally to the matter before us.[9]

Precisely the same Fukushima contention had been put before licensing boards in a number of active proceedings in which there are other issues requiring their adjudicatory consideration. Thus, no matter its substance, the action of other boards on that contention cannot serve of itself to close out any of those proceedings. In sharp contrast, the charge given to our three Boards was perforce limited to the passing upon the four reopening motions and the intervention petition. Thus, with the issuance of LBP-11-27, our assigned task would seem to have been completed, subject only to the possible filing of a motion for reconsideration of that decision or a remand from the Commission should that body undertake to review the decision either on an appeal taken from it or on the Commission's own initiative.

2. Although appeals to the Commission have been taken from LBP-11-27,[10] there has not been an express request that we reconsider the underpinnings of our prematurity determination in that decision. Instead, what we now have in hand are a number of essentially identical pleadings that were filed on October 28, 2011[11] and cover all but one of the nuclear power plants embraced by the previously denied reopening motions and intervention petition.[12] Denominated motions to reinstate and supplement the basis for the previously rejected Fukushima contention, these new submissions are said to be justified by a development that

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[7] *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141 (2011).

[8] *Id.* at 175-76.

[9] LBP-11-27, 74 NRC at 601.

[10] *See* Petition for Review of LBP-11-27 (Nov. 2, 2011). Petitioners requested that the Commission hold that appeal in abeyance pending our action on the reinstatement motions. *Id.* at 2.

[11] [Center for a Sustainable Coast, Women's Action for New Directions f/k/a Atlanta Women's Action for New Directions, and Southern Alliance for Clean Energy's] Motion to Reinstate and Supplement the Basis for Fukushima Task Force Report Contention (Oct. 28, 2011) [hereinafter *Vogtle* Motion]; [Blue Ridge Environmental Defense League's William States Lee] Motion to Reinstate and Supplement the Basis for Fukushima Task Force Report Contention (Oct. 28, 2011); [Northwest Environmental Advocates'] Motion to Reinstate and Supplement the Basis for Fukushima Task Force Report Contention (Oct. 28, 2011); [Blue Ridge Environmental Defense League's Vogtle] Motion to Reinstate and Supplement the Basis for Fukushima Task Force Report Contention (Oct. 28, 2011), and [Lon Burman, Sustainable Energy and Economic Development (SEED) Coalition, Public Citizen, and True Cost of Nukes'] Motion to Reinstate and Supplement the Basis for Fukushima Task Force Report Contention (Oct. 28, 2011).

[12] The exception is the Bell Bend Nuclear Power Plant.

coincidentally occurred on October 18, the date of the issuance of LBP-11-27. That development was the issuance by the Commission of a Staff Requirements Memorandum — SRM/SECY-11-0124 (SRM).[13] In the view of the movants, this document had the necessary effect of removing the ground assigned in LBP-11-27 for the rejection of the Fukushima environmental contention.

Given the lack of any significant difference between the several reinstatement motions, it is enough for present purposes to refer just to that submitted with regard to the Vogtle facility by a group of organizations headed by the Center for a Sustainable Coast and represented by the Turner Environmental Law Clinic at the Emory University School of Law (*Vogtle* motion). Whatever might be concluded with regard to the substance of that filing will be equally applicable to the other motions.

In the October 18 SRM, the Commission directed the Staff to implement "without delay" the recommendations of the Task Force and to complete by 2016 its review of the lessons learned from the Fukushima event.[14] On the apparent premise that the lack of previous Commission action on the Task Force findings and recommendations was the sole basis for the rejection of the Fukushima contention in LBP-11-27 as premature, the *Vogtle* motion would have it that the contention must now be deemed admissible.[15]

That premise is far wide of the mark. It is quite true that LBP-11-27 stressed that the Commission had not as yet accepted the Task Force's findings and recommendations. A reading of the entire decision makes clear, however, that the prematurity determination did not rest solely upon that consideration. To the contrary, after a review of the analysis that undergirded the Commission's conclusion in CLI-11-5 that the request for relief before it was premature, we had this to say: "It is difficult to fathom how the Commission could have stated more precisely and definitively that it remains much too early in the process of assessing the Fukushima event in the context of the operation of reactors in the United States to allow any informed conclusion regarding the possible safety or environmental implications of that event regarding such operation."[16]

We have not been provided in the *Vogtle* motion any reason to believe that the issuance of the SRM of itself materially changed matters in that regard and gave rise to the environmental implications that the Fukushima contention maintains must now be examined in an environmental impact statement. Thus, were we required to address the reinstatement motion on the merits, we would be inclined

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[13] Staff Requirements — SECY-11-0124 — Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report at 1 (Oct. 18, 2011) (unanimous approval) (SRM/SECY-11-0124).

[14] Staff Requirements Memo at 1.

[15] *Vogtle* Motion at 3.

[16] LBP-11-27, 74 NRC at 601.

to agree with the applicants and NRC Staff,[17] as well as with other licensing boards that have already passed upon the significance of the document in a like context,[18] that the SRM does not provide a foundation for the admission of the contention.

As we see it, however, the *Vogtle* motion and its companions are appropriately denied on an entirely different and independent ground not involving an inquiry into the merits of the claim that the Fukushima contention should be restored on the basis of the October 18 SRM. As noted above,[19] these three Boards were established for the sole purpose of ruling upon the motions to reopen four closed proceedings and the intervention petition that sought to initiate a new proceeding. Neither the referral of the motions/petitions to the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel nor his assignment of those pleadings to the newly created Boards contains the slightest suggestion that the Boards' responsibilities might extend beyond a denial of the sought relief.[20] Most particularly, there is nothing in any document related to the establishment of these Boards that might suggest a contemplation that they would remain in existence indefinitely for the purpose of springing into action whenever some new development might be presented as support for the reinstatement of the Fukushima contention.

We need add only that there is no occasion to decide here whether there might possibly be some special circumstances in which, after having completed its assigned mission in the particular proceeding, a Board might justifiably be expected to remain available to entertain endeavors to resurrect the then-closed proceeding on the strength of some new development. Suffice it to say, we see no such circumstances in this instance and none has been presented to us by the movants.

For the foregoing reasons, the motions to reinstate the Fukushima contention

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[17] *See* NRC Staff's Answer to Motion to Reinstate and Supplement the Basis for Fukushima Task Force Report Contention (Nov. 7, 2011) at 5-6; Southern Nuclear Operating Company's Response to Motion to Reinstate and Supplement the Basis for Fukushima Task Force Report Contention (Nov. 7, 2011) at 8-10.

[18] *See, e.g., Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 683 (2011); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 672-73 (2011).

[19] *See supra* page 769.

[20] *See* Energy Northwest; Establishment of Atomic Safety and Licensing Board, 76 Fed. Reg. 56,242 (Sept. 12, 2011); Duke Energy Carolinas, LLC; Southern Nuclear Operating Company; Establishment of Atomic Safety and Licensing Board, 76 Fed. Reg. 56,242 (Sept. 12, 2011); Southern Nuclear Operating Co., PPL Bell Bend, L.L.C., Luminant Generation Company LLC; Establishment of Atomic Safety and Licensing Board, 76 Fed. Reg. 56,242 (Sept. 12, 2011).

are *denied* on the ground that they seek relief beyond what was within the Boards' charter.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Alan S. Rosenthal, Chairman
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

Dr. William H. Reed
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 30, 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

G. Paul Bollwerk, III, Chairman
Dr. Anthony J. Baratta
Dr. William W. Sager

In the Matter of **Docket Nos. 52-014-COL**
52-015-COL
(ASLBP No. 08-864-02-COL-BD01)

TENNESSEE VALLEY AUTHORITY
(Bellefonte Nuclear Power Plant,
Units 3 and 4) **November 30, 2011**

In this 10 C.F.R. Part 52 proceeding regarding the application of the Tennessee Valley Authority (TVA) for issuance of combined licenses (COLs) authorizing the construction and operation of two new Advanced Passive (AP)1000 design reactors at TVA's existing Bellefonte Nuclear Power Plant (BNPP) site, the Licensing Board rules on the admissibility of Joint Intervenors' new contention regarding the Nuclear Regulatory Commission's (NRC) Fukushima Near-Term Task Force (Task Force) July 11, 2011 report, concluding that the contention is inadmissible for litigation in this proceeding because it fails to meet the timeliness standards of 10 C.F.R. § 2.309(c)(1), (f)(2) and does not present a genuine dispute on a material issue of law or fact as required by section 2.309(f)(1)(vi).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY; TIMELY SUBMISSION OF NEW CONTENTIONS)

In an ongoing proceeding in which a hearing petition has been granted and there are contentions pending for merits resolution, intervenors must satisfy two

sets of requirements to gain the admission of a newly proffered contention. The first relates to "timeliness" under 10 C.F.R. § 2.309(f)(2) or section 2.309(c)(1). The second concerns section 2.309(f)(1) which governs contention admissibility. *See* LBP-08-16, 68 NRC 361, 383-86 (2008) (contention admission standards); Licensing Board Memorandum and Order (Ruling on Request to Admit New Contention) (Apr. 29, 2009) at 5, 9 (unpublished) (timeliness standards).

RULES OF PRACTICE: CONTENTIONS (GENUINE DISPUTE; PREMATURITY)

In rejecting the Task Force report-related contentions before them that are, for all practical purposes, identical to the contention before the Board in this proceeding, other licensing boards have identified two principal deficiencies. One is the fact that the Commission's recent disposition of a petition to suspend the issuance of new or renewed licenses for nuclear power plants in the United States, *see Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141 (2011), essentially renders premature the claim for relief in the similarly situated licensing proceeding contentions. In its decision on those petitions, the boards note, the Commission indicated that whether any new regulatory requirements will arise out of the Task Force report, and when the applicability/impact of those requirements in individual licensing adjudications will be appropriate for consideration, is a matter for future determination. As a consequence, given that the Fukushima contentions before them are based on the same information that was before the Commission, in light of the Commission's disposition of the petition, the licensing boards have determined that the issue statements before them were filed prematurely and/or failed to establish the requisite genuine dispute on a material issue of law or fact so as to fulfill the section 2.309(f)(1)(vi) contention admissibility requirement. *See PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591, 599-602 (2011), *motion to reinstate contention denied, Luminant Generation Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 and 4), LBP-11-36, 74 NRC 768 (2011); *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 604, 607-10 (2011); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 670-71 (2011); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 682 (2011).

RULES OF PRACTICE: CONTENTIONS (GENUINE DISPUTE)

Other licensing boards also have found that a Commission staff requirements memorandum (SRM) issued subsequent to the Task Force report that directs the

NRC Staff to take steps to suggest possible regulatory and policy changes and appropriate implementing mechanisms, such as rulemakings, orders, section 50.54 letters, or generic letters, but does not define or impose any new requirements arising from the events at Fukushima, likewise fails to establish a genuine dispute on a material issue of law or fact under section 2.309(f)(1)(vi). *See Diablo Canyon,* LBP-11-32, 74 NRC at 671; *Turkey Point,* LBP-11-33, 74 NRC at 683; *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685, 698-99; *see also Comanche Peak,* LBP-11-36, 74 NRC at 771-72.

NEPA: ENVIRONMENTAL REPORT (DUTY TO SUPPLEMENT)

The other deficiency identified by licensing boards regarding the Task Force report-related contentions is that those contentions allege that the Task Force report evidences a shortcoming in the applicant's environmental report (ER) that must be corrected. This is insufficient to frame a litigable issue, the boards have maintained, because there is no agency regulatory requirement that an applicant needs to update or otherwise supplement an ER subsequent to the time that the Staff finds that report acceptable for review as part of a license application. According to the boards, absent some voluntary action on the part of the applicant to amend its ER, an intervenor wishing to raise some new or revised post-ER environmental concern must await the issuance of the Staff's draft environmental impact statement. *See Diablo Canyon,* LBP-11-32, 74 NRC at 665-70; *Turkey Point,* LBP-11-33, 74 NRC at 681-82; *Davis-Besse,* LBP-11-34, 74 NRC at 697-98.

RULES OF PRACTICE: CONTENTIONS (TIMELY SUBMISSION OF NEW CONTENTIONS)

The additional support Joint Intervenors seek to provide for their new contention in the form of an affidavit likewise is unavailing because, at a minimum, that information causes the contention to run afoul of the timeliness requirements of section 2.309(c)(1), (f)(2). There is nothing material provided in the affidavit in support of the contention that could not have been introduced at the outset of this proceeding as the basis for an environmental or safety contention.

RULES OF PRACTICE: CONTENTIONS (GOOD CAUSE; NEW INFORMATION; TIMELY SUBMISSION OF NEW CONTENTIONS)

In the absence of some future change in the Commission's requirements or policies relative to the subject matter of the affidavit supporting a new contention

that might provide the all-important "good cause" under section 2.309(c)(1) or the "new information" mandated by section 2.309(f)(2), as a basis for a new contention the information in the affidavit is no more than a belated attempt to introduce a matter that could have been identified for litigation when the hearing petition was filed initially. *See Bell Bend,* LBP-11-27, 74 NRC at 602 n.54 (intervenor attempt to tie National Environmental Policy Act environmental justice claim to Task Force report is improper effort to interpose concerns that could have been raised at the outset of the *Vogtle* COL proceeding).

MEMORANDUM AND ORDER
(Ruling on Request to Admit New Contention)

This proceeding concerns the request of applicant Tennessee Valley Authority (TVA) for the issuance of 10 C.F.R. Part 52 combined licenses (COLs) that would authorize the construction and operation of two new Advanced Passive (AP)1000 design reactors, designated as Units 3 and 4, at TVA's existing Bellefonte Nuclear Power Plant (BNPP) site. Pending before the Licensing Board is an August 11, 2011 motion by Joint Intervenors[1] seeking the admission of a new contention. That issue statement seeks to challenge the adequacy of the environmental report (ER) portion of the TVA application because that report fails to address the purported environmental implications of the findings and recommendations put forth by the Nuclear Regulatory Commission's (NRC) Fukushima Near-Term Task Force (Task Force) in its July 11, 2011 report, "Recommendations for Enhancing Reactor Safety in the 21st Century" (ADAMS Accession No. ML111861807). Both applicant TVA and the NRC Staff oppose the contention's admission on a variety of grounds, including a lack of timeliness under 10 C.F.R. § 2.309(c)(1), (f)(2), and its failure to meet the contention admissibility standards of section 2.309(f)(1).

For the reasons set forth below, we find this contention inadmissible.

I. BACKGROUND

Although this proceeding is more than 3 years old, it has a procedural history that can be recounted quickly. Responding to the NRC's February 2008 *Federal Register* notice that offered the opportunity to request a hearing regarding TVA's October 2007 COL application for proposed Units 3 and 4, in a June 2008

[1] Joint Intervenors are the Blue Ridge Environmental Defense League (BREDL) and the Southern Alliance for Clean Energy (SACE).

petition Joint Intervenors sought to establish their standing to intervene and the admissibility of twenty-four contentions raising various safety and environmental challenges to the TVA application. *See* LBP-08-16, 68 NRC 361, 373-75 (2008). In a September 2008 decision, the Board found that Joint Intervenors had established their standing and had proffered one admissible safety contention (FSAR-D) and three admissible environmental contentions (NEPA-B, NEPA-G, and NEPA-N), which the Commission on review reduced to two litigable environmental issue statements (NEPA-B and NEPA-N).[2] *See id.* at 428-29, *rev'g referred rulings on contention admissibility,* CLI-09-3, 69 NRC 68 (2009), and *declining to review referred ruling on contention inadmissibility,* CLI-09-21, 70 NRC 927 (2009). Thereafter, Joint Intervenors unsuccessfully sought to admit two additional environmental contentions, as well as to amend one of the admitted environmental contentions. *See* Licensing Board Memorandum and Order (Ruling on Request to Admit New Contention) (Apr. 29, 2009) at 14 (unpublished) (NEPA-S) [hereinafter New Contention Ruling]; Licensing Board Memorandum and Order (Ruling on Request to Amend Contention NEPA-N) (Jan. 26, 2009) at 8 (unpublished); Licensing Board Memorandum and Order (Ruling on Request to Admit New Contention) (Oct. 14, 2008) at 13 (unpublished) (NEPA-R).

Although mandatory discovery document disclosure efforts by the parties regarding the admitted contentions have continued up to this time, *see, e.g.,* Letter from Scott A. Vance, TVA Counsel, to Louis A. Zeller, BREDL Representative, Sara Barczak, SACE Representative, & Ann P. Hodgdon, NRC Staff Counsel (Nov. 18, 2011), since approximately July 2009 this proceeding has been on hold due to a series of developments concerning applicant TVA's plans for proceeding with the COL application for Units 3 and 4, *see* Licensing Board Memorandum and Order (Staff Review Schedule Status Update) (Sept. 18, 2009) at 1-2 (unpublished). Most recently, in a September 2011 status report TVA informed the Board that at an August 2011 meeting the TVA board of directors authorized the completion of partially constructed Bellefonte Unit 1, which has a 10 C.F.R. Part 50 construction permit, after the planned initial fuel loading at Watts Bar Unit 2, which currently is the subject of a Part 50 operating license (OL) proceeding. Further, in this same status report TVA stated that its recently updated Integrated Resource Plan outlining TVA's preferred path for meeting power system demand over the next 20 years projects (1) the addition of Bellefonte Unit 1 in the 2018 to 2020 time frame; and (2) the possible addition of Unit 2, the other unfinished unit on the Bellefonte site, in the 2020 to 2022 time frame. As a consequence, the TVA status report indicated that TVA has

[2] As part of its ruling, the Board also found that one named intervenor, BREDL's Bellefonte Efficiency and Sustainability Team chapter, had failed to establish its standing. *See* LBP-08-16, 68 NRC at 428.

undertaken an analysis, which should be completed by the end of 2011, of whether to maintain the current COL application for Units 3 and 4. Further, according to the TVA report, pending completion of that analysis and a final decision regarding the current COL application, TVA has requested that the Staff continue to defer indefinitely its COL application review, consistent with a previous TVA/NRC Staff agreement to place the application in a suspended status. Moreover, the TVA report indicated that if TVA decides to pursue COLs for Units 3 and 4, up to 2 years would be required to amend its pending COL application to account for the changes to the BNPP site-specific design and the evaluation of cumulative impacts of all of the Bellefonte units. *See* Report on the Status of Bellefonte Nuclear Plant Units 3 & 4 [COL] Application Following TVA's Decision to Complete Bellefonte Nuclear Plant Unit 1 (Sept. 2, 2011) at 2-4.

Notwithstanding the essentially suspended status of this proceeding, in response to the July 11, 2011 report of the Commission-appointed Task Force making recommendations for additional improvements to the agency's regulatory system in light of the March 2011 post-earthquake and tsunami events at Fukushima I,[3] on August 11, 2011, Joint Intervenors submitted a motion, with an accompanying contention, seeking the admission of a new issue statement regarding the implications of the Task Force report for this proceeding. *See* Motion to Admit New Contention Regarding the Safety and Environmental Implications of the [NRC] Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) at 1 [hereinafter Motion to Admit New Contention]; Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) at 4-5 [hereinafter Contention NEPA-T]. On August 25 and September 6, 2011, respectively, TVA and the Staff opposed the admission of the contention as untimely under 10 C.F.R. § 2.309(c)(1), (f)(2), and as failing to meet the contention admissibility standards of 10 C.F.R. § 2.309(f)(1). *See* [TVA] Answer in Opposition to Proposed Contention Regarding Fukushima

[3] A detailed exegesis regarding the Task Force and its report, as well as the Commission's responses to the report and an April 2011 BREDL/SACE-supported petition to suspend the issuance of new or renewed licenses for nuclear power plants in the United States (including the requested COLs for Bellefonte Units 3 and 4) until information from the Fukushima accident became clearer and lessons learned could be identified and understood, can be found in the decisions of several of the boards presiding over the various Part 52 COL and Part 54 license renewal proceedings addressing the admissibility of similar versions of a Fukushima accident-related contention before those boards. *See PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591, 594 (2011), *motion to reinstate contention denied, Luminant Generation Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 and 4), LBP-11-36, 74 NRC 768 (2011); *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 604, 606-07 (2011); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 658-60 (2011); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 678-79 (2011); *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685, 689 (2011).

Task Force Report (Aug. 25, 2011) at 2 [hereinafter TVA Answer]; NRC Staff Answer to Joint Intervenors' Motion to Admit New Contention Regarding the Safety and Environmental Implications of the NRC Task Force Report on the Fukushima Dai-ichi Accident (Sept. 6, 2011) at 1 [hereinafter Staff Answer]. Joint Intervenors filed a reply to the TVA and Staff answers on September 13, 2011. *See* Intervenors' Memorandum in Reply to Oppositions to Admission of New Contention (Sept. 13, 2011) at 1 [hereinafter Joint Intervenors Reply].

II. ANALYSIS

Because this is an ongoing proceeding in which Joint Intervenors' hearing request has been granted and there are two environmental contentions pending for merits resolution, Joint Intervenors must satisfy two sets of requirements to gain the admission of their newly proffered contention. The first relates to "timeliness" under 10 C.F.R. § 2.309(f)(2) or section 2.309(c)(1). The second concerns section 2.309(f)(1) that governs contention admissibility. We have described all of these standards previously. *See* LBP-08-16, 68 NRC at 383-86 (contention admission standards); New Contention Ruling at 5, 9 (timeliness standards).

The new contention put forth by Joint Intervenors, which we designate as contention NEPA-T in line with our earlier procedural directive, *see* Licensing Board Memorandum and Order (Initial Prehearing Order) (June 18, 2008) at 2 (unpublished), provides as follows:

> The ER for Bellefonte Units 3 & 4 fails to satisfy the requirements of NEPA because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report. As required by NEPA and the NRC regulations, these implications must be addressed in the ER.

Contention NEPA-T at 4-5. This language is materially the same as that used for contentions filed on August 11 in a number of other reactor licensing proceedings, including the Part 52 COL *Bell Bend, Comanche Peak, Fermi, Lee, Levy, South Texas,* and *Vogtle* proceedings; the *Watts Bar* Part 50-OL proceeding; and the *Seabrook, Davis-Besse, Diablo Canyon, Columbia,* and *Indian Point* Part 54 operating license renewal proceedings.[4] As was noted by the licensing board

[4] *See, e.g., Bell Bend,* LBP-11-27, 74 NRC at 596; *Seabrook,* LBP-11-28, 74 NRC at 606; *Diablo Canyon,* LBP-11-32, 74 NRC at 659; *Turkey Point,* LBP-11-33, 74 NRC at 679-80; *Davis-Besse,* LBP-11-34, 74 NRC at 692; *Detroit Edison Co.* (Fermi Nuclear Power Plant, Unit 3), Docket No. 52-033-COL, Memorandum and Order (Denying as Moot Intervenors' Motion to Admit Contention 17 and Motion to Supplement the Basis of Contention 17) (Nov. 23, 2011) at 3-4 (unpublished).

in the *Seabrook* license renewal application (LRA) proceeding relative to the contention before it, the contention was

> based on the fact that, after the events at Japan's Fukushima Dai-ichi site that caused extensive damage in March 2011, the Commission (among other steps taken in response) directed NRC Staff to establish a Near-Term Task Force to review the agency's processes and regulations. The Near-Term Task Force was instructed to determine "whether the agency should make additional improvements to its regulatory system and to make recommendations to the Commission for its policy direction." Rather than addressing the underlying facts regarding the accident in Japan and their possible implications concerning the Seabrook LRA, the proffered contention concerns the recommendations of the Near-Term Task Force — which Interveners claim will require a "massive" reevaluation and revision of the NRC's fundamental regulatory scheme.

Seabrook, LBP-11-28, 74 NRC at 606-07 (footnotes omitted). Further, the *Seabrook* board observed:

> The Near-Term Task Force completed its work and issued its report, for the Commission's consideration, on July 12, 2011. The Commission has determined that any changes it decides to adopt as a result of the Near-Term Task Force recommendations "will be implemented through our normal regulatory processes." The Commission has also emphasized that "[o]ur understanding of the details of the failure modes at the Fukushima Daiichi site continues to evolve, and we continue to learn more about the extent of the damage at the site."

Id. at 607 (footnotes omitted). Finally, as is the case relative to the contention before us, *see* Contention NEPA-T, unnumbered attach. 2 (Declaration of Dr. Arjun Makhijani Regarding Safety and Environmental Significance of NRC Task Force Report Regarding Lessons Learned from Fukushima Daiichi Nuclear Power Station Accident (Aug. 8, 2011)), the *Seabrook* board recounted:

> In support of their proffered contention, Interveners submit the Declaration of Dr. Arjun Makhijani, who is troubled by the implications of the Near-Term Task Force Report. He believes "substantial revisions to the very framework of NRC regulations are needed to adequately protect public health and the environment." He is "concerned that over the past three decades or more, the NRC has not conducted the type of review of the adequacy of its safety regulations that is necessary to update its requirements so as to ensure that NRC safety requirements will provide the minimum level of protection required by the Atomic Energy Act." And he considers "the current inadequacies in the NRC's program for regulation of basic reactor safety to be extraordinarily grave problems."

Seabrook, LBP-11-28, 74 NRC at 607 (footnotes omitted). And as was the case

with the contention in the *Seabrook* license renewal proceeding, *see id.,* there is no mention of Bellefonte in Dr. Makhijani's affidavit filed in support of Joint Intervenors' contention NEPA-T or any attempt to relate his concerns specifically to the Bellefonte Units 3 and 4 COL proceeding.

There is, however, one difference with respect to the contention proffered in this proceeding to the degree it is supported by an additional affidavit of Dr. Ross McCluney. *See* Contention NEPA-T, unnumbered attach. 1 (Declaration of Dr. Ross McCluney Regarding Environmental and Safety Issues at Power Plants Based on Events at Fukushima and the Findings of the NRC Interim Task Force (Aug. 11, 2011)). In support of Joint Intervenors' claim of TVA ER deficiencies associated with the Task Force report, in his affidavit Dr. McCluney expresses his concerns about the possibility that an earthquake such as the one that struck Japan in March 2011, even with an epicenter at some distance from the Bellefonte facility, might cause a seismic seiche, or river wave, along the Tennessee River that borders the BNNP site. Further, according to Dr. McCluney, the karst formations (i.e., limestone cavern topography) near the Bellefonte facility are the type of subsurface formations that require additional scrutiny as relevant seismic hazards because of the general instability of such formations. *See id.* at 2-4. These concerns, he maintains, are in line with the Task Force report's recommendations that, among other things, licensees be directed to reevaluate the site seismic and flooding hazards of their current site against existing NRC regulatory requirements, and conduct seismic and flooding walkdowns to identify and address plant-specific vulnerabilities and verify the adequacy of existing monitoring and maintenance features. *See id.* at 4-5.

In arguments that generally mirror those made in the other licensing cases cited above in which such a contention has been proffered,[5] Joint Intervenors assert that contention NEPA-T complies with the threshold "timeliness" provisions of both sections 2.309(f)(2) and (c)(1) so as to be subject to consideration as admissible under section 2.309(f)(1). *See* Motion to Admit New Contention at 2-8. They also maintain that the contention fully complies with the contention admissibility requirements of section 2.309(f)(1). *See id.* at 7; *see also* Contention NEPA-T at 4-22. In their answers, both applicant TVA and the Staff declare the contention to be inadmissible under the timing and substantive admissibility standards of section 2.309(c)(1), (f)(1)-(2). *See* TVA Answer at 7-27; Staff Answer at 5-18. In their reply pleading, which is the subject of a TVA motion to strike as untimely, *see* [TVA] Motion to Strike Intervenors' Reply to Answers to the Fukushima Task Force Report Contention (Sept. 22, 2011) at 1, in addition to proffering arguments in support of their contention's timeliness and substantive admissibility that were

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[5] *See, e.g., Bell Bend,* LBP-11-27, 74 NRC at 596-98; *Seabrook,* LBP-11-28, 74 NRC at 607; *Diablo Canyon,* LBP-11-32, 74 NRC at 662-63; *Turkey Point,* LBP-11-33, 74 NRC at 679-80; *Davis-Besse,* LBP-11-34, 74 NRC at 691-93; *Fermi* Memorandum and Order at 2-4.

made in the *Diablo Canyon, Watts Bar, Vogtle,* and *Turkey Point* proceedings, *see* Joint Intervenors Reply at 1-2 & n.1; *see also id.* unnumbered attach. 1, Joint Intervenors maintain that the Tennessee River seiche-related basis of their contention is admissible, being both timely and substantively adequate. Their principal support for this assertion is Dr. McCluney's affidavit and the information contained therein, including a referenced 1968 United States Geological Survey (USGS) report that provides a list of seiches on the Tennessee River caused by activity relative to the March 1964 Alaska earthquake. *See id.* at 2-4.

In rejecting the Task Force report-related contentions before them that are, for all practical purposes, identical to contention NEPA-T that is before us, other licensing boards have identified two principal deficiencies.[6] One is the fact that the Commission's recent disposition of a petition to suspend the issuance of new or renewed licenses for nuclear power plants in the United States (including the requested COLs for Bellefonte Units 3 and 4), *see Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141 (2011); *see also supra* note 3, essentially renders premature the claim for relief in the similarly situated licensing proceeding contentions. In its decision on those petitions, the boards note, the Commission indicated that whether any new regulatory requirements will arise out of the Task Force report, and when the applicability/impact of those requirements in individual licensing adjudications will be appropriate for consideration, is a matter for future determination. As a consequence, given that the Fukushima contentions before them are based on the same information that was before the Commission (principally the affidavit by Dr. Makhijani that was presented in support of the various contentions, including contention NEPA-T here), in light of the Commission's disposition of the petition, the licensing boards have determined that the issue statements before them were filed prematurely and/or failed to establish the requisite genuine dispute on a material issue of law or fact so as to fulfill the section 2.309(f)(1)(vi) contention admissibility requirement.[7] *See Bell*

[6] At least one board has identified what it perceived as several other deficiencies relating to the Task Force-related contention before it, including a failure to follow the precept of section 2.323(b) to contact the other parties to resolve the issue presented by the contention prior to its submission; a failure to show the contention is within the scope of the proceeding or is material to the findings NRC must make to support the requested licensing action in accord with section 2.309(f)(1)(iii)-(iv); and a failure to reference any specific portion of the application at issue as required by section 2.309(f)(1)(vi). *See Davis-Besse,* LBP-11-34, 74 NRC at 696-97.

[7] Several of those licensing boards also have found that the subsequent Commission issuance of an October 18, 2011 staff requirements memorandum (SRM) regarding the Task Force report, *see* Memorandum from Annette L. Vietti-Cook, Secretary, to R.W. Borchardt, Executive Director for Operations, Staff Requirements — SECY-11-0124 — Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report (Oct. 18, 2011) (ADAMS Accession No. ML112911571), likewise is insufficient to establish the admissibility of issue statements like contention NEPA-T. *(Continued)*

Bend, LBP-11-27, 74 NRC at 599-602; *Seabrook,* LBP-11-28, 74 NRC at 607-10; *Diablo Canyon,* LBP-11-32, 74 NRC at 670-71; *Turkey Point,* LBP-11-33, 74 NRC at 682-83.

The other deficiency identified by the boards relates to the claim in the contentions before them that the Task Force report evidences a shortcoming in the applicant's ER that must be corrected. This is insufficient to frame a litigable issue, the boards have maintained, because there is no agency regulatory requirement that an applicant needs to update or otherwise supplement an ER subsequent to the time that the Staff finds that report acceptable for review as part of a license application. According to the boards, absent some voluntary action on the part of the applicant to amend its ER, an intervenor wishing to raise some new or revised post-ER environmental concern must await the issuance of the Staff's draft environmental impact statement (DEIS).[8] *See Diablo Canyon,* LBP-11-32, 74 NRC at 665-70; *Turkey Point,* LBP-11-33, 74 NRC at 681-82; *Davis-Besse,* LBP-11-34, 74 NRC at 697-98.

We find either of these grounds — the premature nature of the contention given the Commission's decision in CLI-11-5 and the contention's inappropriate reliance on the need to amend/supplement the ER — as compelling reasons

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Although noting that the SRM does direct the Staff to take steps to suggest possible regulatory and policy changes and appropriate implementing mechanisms, such as rulemakings, orders, section 50.54 letters, or generic letters, the boards nonetheless have concluded that because the SRM does not define or impose any new requirements arising from the events at Fukushima, it likewise fails to establish a genuine dispute on a material issue of law or fact under section 2.309(f)(1)(vi). *See Diablo Canyon,* LBP-11-32, 74 NRC at 671; *Turkey Point,* LBP-11-33, 74 NRC at 683; *Davis-Besse,* LBP-11-34, 74 NRC at 698-99; *see also Comanche Peak,* LBP-11-36, 74 NRC at 771-72. For their part, Joint Intervenors have not attempted, by means of a contention supplement or any other procedural device, to interpose the issuance of this SRM as a basis for the admissibility of contention NEPA-T.

[8] In fact, in the *Fermi* COL proceeding in which a DEIS has been issued, this is exactly the procedural path to which the licensing board has guided the intervenors. *See Fermi* Memorandum and Order at 5-7.

We also note that, although it may not be an issue in this COL proceeding given the schedule described earlier in which a Staff DEIS is not likely to be generated for several years, *see supra* p. 779, unanswered by any of the licensing board decisions up to this point is the question of what will happen if Commission regulatory or policy directives arising from the Fukushima accident will not be ready to be promulgated until sometime after the completion of a licensing proceeding and any associated adjudicatory hearing. Presumably, if it acts favorably on the applications, the Commission will provide further guidance on this matter to the parties and the licensing boards in COL proceedings in the context of any upcoming decisions on the *Vogtle* and *Summer* COL applications. *See Callaway,* CLI-11-5, 74 NRC at 152-56 (describing Commission responses to requests for suspension of reactor licensing reviews and associated adjudications in the wake of the Three Mile Island (TMI) accident and the September 11, 2001 terrorist attacks, including the TMI Action Plan denoting how to litigate TMI-related issues in pending OL proceedings).

for concluding that contention NEPA-T before us is inadmissible in this COL proceeding.

Further, we conclude that the additional support Joint Intervenors seek to provide for the contention in the form of Dr. McCluney's affidavit likewise is unavailing because, at a minimum, that information causes the contention to run afoul of the timeliness requirements of section 2.309(c)(1), (f)(2). There is nothing material provided in Dr. McCluney's affidavit in support of the contention that could not have been introduced at the outset of this proceeding in June 2008 as the basis for an environmental or safety contention regarding the impact on the BNPP site of possible Tennessee River seiches. Certainly, the 1968 USGS report regarding seiches relied upon by Dr. McCluney was available at that time. Additionally, in their hearing petition, Joint Intervenors in contention FSAR-B identified concerns about the karstic nature of the area around the BNPP site and the adequacy of the seismic analysis for the facility, which the Board found not to be an admissible issue. *See* LBP-08-16, 68 NRC at 390-94. Consequently, in the absence of some future change in the Commission's requirements or policies relating to facility seismic analysis that might provide the all-important "good cause" under section 2.309(c)(1) or the "new information" mandated by section 2.309(f)(2), as a basis for contention NEPA-T the information in Dr. McCluney's affidavit is no more than a belated attempt to introduce a matter that could have been identified for litigation in June 2008. *See Bell Bend,* LBP-11-27, 74 NRC at 602 n.54 (BREDL attempt to tie NEPA environmental justice claim to Task Force report is improper effort to interpose concerns that could have been raised at the outset of the *Vogtle* COL proceeding).

III. CONCLUSION

For the reasons set forth above, we find that Joint Intervenors' new contention NEPA-T is inadmissible for litigation in this proceeding in that it fails to (1) meet the timeliness standards of 10 C.F.R. § 2.309(c)(1), (f)(2); and (2) does not present a genuine dispute on a material issue of law or fact as required by section 2.309(f)(1)(vi).[9]

For the foregoing reasons, it is, this 30th day of November 2011, ORDERED

[9] Our conclusion regarding the inadmissibility of contention NEPA-T would be the same with or without the information in Joint Intervenors' reply pleading, which essentially renders moot the TVA motion to strike that reply.

that the request of Joint Intervenors in their August 11, 2011 submission for the admission of new contention NEPA-T is *denied.*

THE ATOMIC SAFETY AND
LICENSING BOARD

G. Paul Bollwerk, III, Chairman
ADMINISTRATIVE JUDGE

Anthony J. Baratta
ADMINISTRATIVE JUDGE

William W. Sager
ADMINISTRATIVE JUDGE

Rockville, Maryland
November 30, 2011

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

Eric J. Leeds, Director

In the Matter of

ENTERGY NUCLEAR OPERATIONS, INC. (Vermont Yankee Nuclear Power Station)	**Docket No. 50-271 (License No. DPR-28)**
ENTERGY OPERATIONS, INC. (River Bend Station, Unit 1)	**Docket No. 50-458 (License No. NPF-47)**
	November 8, 2011

By electronic mail dated August 22, 2009, and supplemented on December 22 and 28, 2009, Mr. Sherwood Martinelli, the Petitioner, submitted a 10 C.F.R. § 2.206 petition related to projected shortfalls in decommissioning trust funds for nuclear power plants operated by Entergy. The Petitioner requested that the NRC take enforcement actions by suspending the operating license of any Entergy plant with a projected shortfall in decommissioning trust funds, ensure that any shortfalls be rectified within 60 days, order the release of all Entergy financial documents relating to decommissioning funding levels, and a number of other actions including the imposition of daily fines and the immediate suspension of all Entergy licensing actions before the Commission.

Under 10 C.F.R. § 50.75(f)(1) and (2), the NRC requires power reactor licensees to report decommissioning funding assurance information to the agency at least once every 2 years. As a result, all nuclear power plant owners were required to submit their decommissioning funding assurance information to the NRC based on financial data as of December 31, 2008. Due to the economic downturn of late 2008, a number of licensees reported projected shortfalls. This included five reactor sites operated by Entergy. The NRC Staff performed an independent analysis of each of these reports, and required Entergy to provide

a written plan of action to indicate how they will meet their minimum funding assurance level. Based on a case-by-case review of each response, the Staff concluded that all Entergy facilities have provided reasonable assurance that sufficient funding for radiological decommissioning of their respective facilities will be available at the time of permanent termination of operation.

In DD-11-7, the Office of Nuclear Reactor Regulation denied the Petitioner's request to suspend the operating licenses of the Entergy facilities that had projected shortfalls in their decommissioning trust funds. The NRC also denied the Petitioner's request that the NRC take additional actions including ordering immediate actions by Entergy to redress the projected shortfalls, imposing daily fines until the Licensee deposits adequate funds to make the decommissioning funds fully whole, and suspend all Entergy licensing actions before the Commission. The NRC granted the Petitioner's request that the agency make available to the Petitioner all data and information presented by Entergy and used by the NRC Staff to decide whether facilities owned and licensed by Entergy have adequate decommissioning funds as required by the regulations. All information supplied by Entergy and used by the Staff is publicly available in ADAMS. In addition, the Staff responded to the Petitioner's FOIA request (FOIA 2010-0090) that asked for the same information.

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

I. INTRODUCTION

By electronic transmission dated August 22, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML092400492), as supplemented by electronic transmissions on December 22 (ADAMS Accession No. ML093620029) and December 28, 2009 (ADAMS Accession No. ML093641014), Mr. Sherwood Martinelli, the Petitioner, filed a petition under Title 10 of the *Code of Federal Regulations* (10 C.F.R.) section 2.206, "Requests for action under this subpart," to Mr. R. W. Borchardt, Executive Director for Operations, U.S. Nuclear Regulatory Commission (NRC), concerning all Entergy-operated reactor facilities that have projected shortfalls in their decommissioning trust funds. The petition is inclusive and will consider both the northern reactor facilities operated by Entergy Nuclear Operations, Inc., and the southern reactor facilities operated by Entergy Operations, Inc. (both organizations hereinafter

referred to as Entergy[1]). The Petitioner asked the NRC to take the enforcement actions described below.

A. Actions Requested

In the original petition of August 22, 2009, the Petitioner asked the NRC to take the following actions against all licensed Entergy facilities that have projected shortfalls in their decommissioning trust funds with emphasis on Indian Point Nuclear Generating (Indian Point), Units 1, 2, and 3, and the Vermont Yankee Nuclear Power Station (Vermont Yankee):

- Temporarily suspend the operating licenses of all Entergy facilities that have projected shortfalls in their decommissioning trust funds.
- Order Entergy to use profits from its operations or loans from lending institutions to redress the projected shortfalls.
- Conduct a complete review of all documents filed by Entergy on financial assurances to identify misrepresented, false, or untrue statements on decommissioning funding.
- Suspend all NRC actions on Entergy filings, including license renewal, license transfers, license amendments, and exemption requests, until the licensee is in compliance with minimum decommissioning funding levels.
- Terminate any NRC staff members who deliberately ignored false and untrue statements about financial assurances provided by Entergy.
- Order Entergy to publicly release all financial documents that provide decommissioning funding levels.
- Order Entergy to be in full compliance with all NRC rules and regulations and to meet minimum decommissioning funding levels within 60 days, or the NRC will permanently terminate the operating licenses.

In the acknowledgment letter to the Petitioner dated December 17, 2009 (ADAMS Accession No. ML093440334), the NRC informed the Petitioner that the agency was denying his request for immediate actions and that it was referring his concerns about the projected decommissioning funding shortfalls at Entergy's Vermont Yankee and River Bend nuclear power plants to the Office of Nuclear

[1] Reactor facilities operated by Entergy include Arkansas Nuclear One, Units 1 and 2; James A. FitzPatrick Nuclear Power Plant; Grand Gulf Nuclear Station, Unit 1; Indian Point, Units 2 and 3; Palisades Nuclear Plant; Pilgrim Nuclear Power Station; River Bend Station; Vermont Yankee Nuclear Power Station; and Waterford Steam Electric Station, Unit 3. In addition, Entergy owns both Big Rock Point and Indian Point Unit No. 1 and provides services to Cooper Nuclear Station.

Reactor Regulation for appropriate action. In response to this letter, the Petitioner submitted his electronic transmission dated December 22, 2009, that amended the original petition and asked the NRC to take the following additional actions:

- The NRC should make available to the Petitioner all data and information presented by Entergy and used by the NRC staff in ascertaining and making its preliminary decision on which facilities owned and licensed by Entergy do or do not have adequate decommissioning funds as required by the regulations. This information includes any mathematical formulas, assurances, and financial instruments, such as stock investment portfolios or insurance documents.
- The NRC should fine Entergy $50,000 per day per each separate license until the licensee deposits adequate funds to make the decommissioning funds fully whole.

In a letter to Entergy dated December 28, 2009 (ADAMS Accession No. ML093450778), the NRC Staff concluded that Entergy had demonstrated adequate decommissioning funding assurance for Indian Point, Unit No. 2. In response to this letter, the Petitioner submitted his electronic transmission dated December 28, 2009, that amended the original petition and asked the NRC to take one of the following actions:

- Require Entergy to withdraw any pending license renewal application currently before the NRC.
- Require Entergy to (1) admit that it lied or deceived the NRC by submitting false, inaccurate, or misleading data in its decommissioning trust fund reports, (2) agree to a fine of no less than $5 billion, and (3) submit new, accurate reports within 180 days to make its decommissioning trust funds whole.

II. DISCUSSION

A. Background

Under 10 C.F.R. § 50.75(f)(1) and (2), the NRC requires power reactor licensees to report decommissioning funding assurance information to the agency at least once every 2 years. The NRC received the first reports on March 31, 1999. Required information includes the following:

- the amount of decommissioning funds estimated as required by 10 C.F.R. § 50.75(b) and (c),
- the amount of funds for radiological decommissioning accumulated as of the end of the most recent calendar year preceding the date of the report,

- a schedule, if any, of the annual amounts remaining to be collected,
- the assumptions used in determining rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections with proper documentation,
- any contracts that the licensee is relying on in accordance with 10 C.F.R. § 50.75(e)(1)(v),
- any modifications that the licensee has made to its current method of providing financial assurance since the last submitted report, and
- any material changes to trust agreements.

Licensees must use the formulas in 10 C.F.R. § 50.75(c) to estimate the minimum funding amount needed for radiological decommissioning. As an alternative, licensees may also use a site-specific methodology to determine the funding needed as long as the amount is greater than the decommissioning cost estimate derived from the 10 C.F.R. § 50.75(c) formulas.

Approximately 70% of licensees are authorized, under NRC regulations, to accumulate funds for decommissioning over the licensed periods of operation of their plants. The NRC does not require such owners to have all of the funds necessary for decommissioning in advance. Generally, these owners are either traditional electric utilities whose rates are regulated by state public utility commissions and, in some cases, the Federal Energy Regulatory Commission (FERC), or they are generation companies that are indirectly regulated with respect to the recovery of decommissioning costs. All other licensees (the remaining 30%) must provide financial assurance through other methods, such as prepaid decommissioning funds or a surety method or guarantee.

The NRC required each power reactor licensee to report to the agency the status of its decommissioning funding as of December 31, 2008, for each reactor or share of a reactor that it owns. Under 10 C.F.R. § 50.75(e)(2), the NRC reserves the right to review, as necessary, the rate of accumulation of decommissioning funds and to take additional actions, as appropriate on a case-by-case basis, to ensure an adequate accumulation of decommissioning funds. Accordingly, the Staff performed an independent analysis of each of these reports to determine whether licensees are providing reasonable assurance that sufficient funding for radiological decommissioning of the reactor will be available at the time of permanent termination of operation.

B. Addressing Shortfalls

During the NRC Staff's analysis of the biennial reports in which it identifies shortfalls in decommissioning funding amounts or in other deficiencies

in contracts, parent company guarantees, or other methods found in 10 C.F.R. § 50.75(e)(1)(i)-(vi), the Staff would work on a case-by-case basis with licensees as it had in the past. The NRC Staff would identify the shortcomings through telephone calls, written requests for additional information, or a demand for information, then recommend courses of actions, develop plans with licensees to remedy shortfalls or shortcomings, and generally monitor their progress. A legally enforceable order would be appropriate when the NRC Staff could make a clear case, with a clear articulated basis, that a significant shortfall or deficiency affects the public health and welfare.

The NRC asked all licensees that showed a shortfall to provide a written plan of action following NRC notification to indicate how they will meet their minimum funding assurance level. As previously stated, under 10 C.F.R. § 50.75(e)(2), the NRC reserves the right to review, as necessary, the rate of accumulation of decommissioning funds and, either independently or in cooperation with the licensee's state public utility commission and FERC, as applicable, to take additional appropriate actions, such as modifying a licensee's schedule for future collections, on a case-by-case basis.

C. Evaluation of Entergy Sites with Projected Shortfalls in Decommissioning Funding Assurance

As previously stated, the Petitioner requested enforcement actions against all Entergy-operated facilities with projected shortfalls in decommissioning funding assurance with emphasis on Indian Point and Vermont Yankee. Entergy submitted the status of its decommissioning funding for the year ending December 31, 2008, by two separate letters dated March 30, 2009 (ADAMS Accession No. ML090920576 for the facilities in NRC Regions I and III and ADAMS Accession No. ML090920218 for the facilities in NRC Region IV).

The NRC Staff's review of the decommissioning status reports identified projected shortfalls at the following Entergy facilities:

- Indian Point, Unit No. 2, had a projected shortfall of $38.6 million.
- Palisades Nuclear Plant had a projected shortfall of $11.5 million.
- River Bend had a projected shortfall of $164.2 million.
- Vermont Yankee had a projected shortfall of $87.4 million.
- Waterford Steam Electric Station, Unit 3, had a projected shortfall of $45.8 million.

The NRC Staff asked Entergy to provide a written response indicating how it would meet its minimum funding assurance level for each of the facilities listed

above. The Staff's review of Entergy's responses resolved its concerns about decommissioning funding assurance. The Staff's findings are summarized below.

1. Indian Point Nuclear Generating Units 1, 2, and 3

The NRC Staff documented the resolution of decommissioning funding assurance for Indian Point, Unit 2, in a letter dated December 28, 2009 (ADAMS Accession No. ML093450778), as follows:

> Based on the information provided by Entergy on August 13, 2009, the NRC staff finds that IP2, as of July 31, 2009, has a DTF [decommissioning trust fund] balance of $326.9 million. Entergy proposes the use of safe storage (SAFSTOR) from IP2's license termination in 2013 through 2063, with 10 additional years through to 2073 dedicated towards decommissioning activities. This allows the DTF to increase during the SAFSTOR years. The NRC staff has reviewed the licensee's plan and determined that the licensee, as of August 13, 2009, provides reasonable assurance of adequate decommissioning funding at the time of permanent termination of operations with the proposed use of SAFSTOR. Accordingly, the NRC staff concludes that no further action is required at this time to demonstrate adequate decommissioning funding assurance, according to NRC standards, for IP2.

The NRC Staff documented the results of its review of the Indian Point Unit No. 1 (IP1) and Indian Point Unit No. 2 (IP2) spent fuel management program and preliminary decommissioning cost estimate in a letter dated March 17, 2010 (ADAMS Accession No. ML100280544):

> The NRC staff finds that Entergy's program for the long-term storage of spent fuel and the preliminary cost estimate for radiological decommissioning of IP1 and IP2 are adequate and provide sufficient details associated with the funding mechanisms. The NRC staff, therefore, concludes that the licensee's spent fuel management program for IP1 and IP2 complies with 10 CFR 50.54(bb) and approves the program on a preliminary basis. In addition, the NRC staff finds that the preliminary cost estimates for radiological decommissioning of IP1 and IP2 comply with the requirements of 10 CFR 50.75(f)(3), and the NRC staff finds that the preliminary cost estimates are not unreasonable.

In Entergy's letter dated March 30, 2009 (ADAMS Accession No. ML090920576), concerning the biennial decommissioning funding status for the year ending December 31, 2008, Entergy projected that sufficient decommissioning funds would be available for Indian Point Unit No. 3 (IP3). Thus, the NRC Staff did not pursue funding issues at IP3.

The Petitioner's electronic transmission dated December 22, 2009, asked the NRC to make available to the Petitioner all data and information presented

by Entergy and used by the NRC Staff to ascertain and make its preliminary decision on whether facilities owned and licensed by Entergy have adequate decommissioning funds as required by the regulations. The Petitioner made a similar appeal through a Freedom of Information Act (FOIA) request dated January 1, 2010 (ADAMS Accession No. ML100040152, tracked as FOIA 2010-0090). The NRC's response to the Petitioner's FOIA request (ADAMS Accession No. ML100541269) provided the data and information that the Petitioner asked for in his electronic transmission dated December 22, 2009.

2. Palisades Nuclear Plant

The NRC Staff documented the resolution of decommissioning funding assurance in a letter dated December 16, 2009 (ADAMS Accession No. ML093490351):

> Based on the information provided by Entergy on August 13, 2009, the NRC staff finds that Palisades Nuclear Plant as of July 31, 2009, has a Decommissioning Trust Fund Balance of $230.8 million. NRC staff has projected this balance to increase such that it will meet the NRC Minimum Decommissioning Funding Formula amount, at the time of permanent cessation of operations in 2031.

3. River Bend Station

The NRC Staff documented the resolution of decommissioning funding assurance in a letter dated August 9, 2011 (ADAMS Accession No. ML112010507):

> By letter dated March 31, 2011 (Agencywide Documents Access and Management System Accession No. ML110940138), Entergy Operations, Inc. (the licensee), submitted the biennial decommissioning funding report for River Bend Station (RBS) for both the regulated portion of the unit (70 percent) and the unregulated portion of the unit (30 percent).
>
> The [NRC] staff has concluded that the 30 percent non-regulated portion of RBS meets the required minimum funding criteria of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.75(b) and (c) based on the current funding level of the decommissioning trust fund, length of time remaining on the license, and expected earnings on the trust fund balance.
>
> The NRC staff has concluded that the 70 percent rate-regulated portion of RBS meets the required minimum funding criteria of 10 CFR 50.75(b) and (c) based on its current funding level, length of time remaining on the license, expected earnings on the trust fund, and future collections to the trust fund from the Louisiana Public Service Commission (LPSC) and the Public Utilities Commission of Texas (PUCT). For the regulated portion of RBS (70 percent), the licensee submitted orders from

the LPSC and PUCT approving decommissioning trust fund collections through 2034 for RBS.

The NRC has concluded that RBS is on track to have sufficient funds for decommissioning at the time of permanent termination of operations is expected.

4. Vermont Yankee Nuclear Power Station

The NRC Staff documented the resolution of decommissioning funding assurance in a letter dated February 19, 2010 (ADAMS Accession No. ML100431486):

> Based on the information provided by Entergy on January 28, 2010, the NRC staff finds that Vermont Yankee Nuclear Power Station as of September 30, 2009, had a Decommissioning Trust Fund Balance of $419.8 million. Entergy established a Parent Company Guarantee in the amount of $40 million by December 31, 2009, to provide additional financial assurance. NRC staff has determined that the Trust Fund Balance, projected to the time of permanent cessation of operations in 2012, plus the verification of a Parent Company Guarantee will cover the projected shortfall.

5. Waterford Steam Electric Station, Unit 3

The NRC Staff documented the resolution of decommissioning funding assurance in a letter dated December 23, 2009 (ADAMS Accession No. ML093420741):

> In its August 13, 2009, letter, Entergy states that it plans to seek rate relief from the Louisiana Public Service Commission, specifically seeking reinstatement of collections for the decommissioning of Waterford 3. The NRC staff has reviewed the licensee's plan and determined that as of August 13, 2009, the licensee has provided reasonable assurance of adequate decommissioning funding at the time of permanent termination of operations. Accordingly, the NRC staff concludes that no further action is required at this time to demonstrate adequate decommissioning funding assurance, according to NRC standards, for the Waterford 3.

III. CONCLUSION

The Petitioner raised issues related to projected shortfalls in decommissioning trust funds for nuclear power plants currently operated by Entergy.

As required by regulation, all nuclear power plant owners submitted their decommissioning funding assurance information to the NRC based on financial data as of December 31, 2008. The NRC Staff performed an independent analysis of each of these reports, identified those licensees that have projected shortfalls

in their funding, and required those licensees to provide a written plan of action to indicate how they will meet their minimum funding assurance level. Based on a case-by-case review of each licensee's response, the Staff concludes that all Entergy facilities have provided reasonable assurance that sufficient funding for radiological decommissioning of their respective facilities will be available at the time of permanent termination of operation.

Based on the above discussion, the Office of Nuclear Reactor Regulation has denied the Petitioner's request to suspend the operating licenses of the Entergy facilities that have projected shortfalls in their decommissioning trust funds and has denied the Petitioner's request that the NRC take certain actions to ensure that the licensee rectifies any shortfalls in the decommissioning trust funds and take other actions to ensure the integrity of the decommissioning trust funds. These actions included suspending all licensing actions for Entergy facilities, ordering immediate actions by Entergy to redress the projected shortfalls, and imposing daily fines until the licensee deposits adequate funds to make the decommissioning funds fully whole.

The NRC granted the Petitioner's request that the agency make available to the Petitioner all data and information presented by Entergy and used by the NRC Staff to decide whether facilities owned and licensed by Entergy have adequate decommissioning funds as required by the regulations. All information supplied by Entergy and used by the Staff is publicly available in ADAMS. In addition, the Staff responded to the Petitioner's FOIA request (FOIA 2010-0090) that asked for the same information.

Estimating the minimum amount of funds needed for decommissioning is important to prevent funding shortfalls that could adversely affect public health and safety. The NRC did not identify any violations or threat to public health and safety associated with the projected shortfalls for the Entergy facilities because Entergy's corrective actions had adequately resolved the matter; therefore, no further action is necessary.

The NRC sent the proposed Director's Decision to both the Petitioner and the Licensee by letters dated September 8, 2011 (ADAMS Accession No. ML101100622). The agency asked the Petitioner and the Licensee to provide comments within 30 days on any part of the proposed Director's Decision that was considered to be erroneous or any issues in the petition that were not addressed. By a telephone call dated September 28, 2011, the Licensee provided verbal comments to the NRC Staff. Based on the Licensee's comments, the NRC modified the final Director's Decision. The Attachment to this Director's Decision discusses these modifications. The Petitioner did not provide any comments.

As provided for 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. 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 8th day of November 2011.

ATTACHMENT

RESOLUTION OF COMMENTS FROM THE PROPOSED DIRECTOR'S DECISION

1. *Distinction Between Entergy Nuclear Operations, Inc., and Entergy Operations, Inc.*

The proposed Director's Decision inaccurately referred to Entergy Nuclear Operations, Inc., as the operator of all Entergy nuclear facilities. The licensee stated that Entergy Nuclear Operations, Inc. (ENO), operates the northern facilities that include James A. FitzPatrick Nuclear Power Plant; Indian Point Nuclear Generating Unit Nos. 2, and 3; Pilgrim Nuclear Power Station; Vermont Yankee Nuclear Power Station; and Palisades Nuclear Plant. ENO also owns Indian Point Nuclear Generating Unit No. 1 and the independent spent fuel storage installation (ISFSI) at Big Rock Point. Separately, Entergy Operations, Inc. (EN), is the operator of the southern facilities that include Arkansas Nuclear One, Units 1 and 2; Grand Gulf Nuclear Station, Unit 1; River Bend Station; and Waterford Steam Electric Station, Unit 3. EN also provides management services to Cooper Nuclear Station.

Response

The U.S. Nuclear Regulatory Commission (NRC) modified the final Director's Decision to acknowledge the distinction between ENO and EN.

2. *Reference to Big Rock Point in the Footnote on Page 2*

The footnote on page 2 of the proposed Director's Decision inaccurately stated that Entergy operated Big Rock Point. The licensee stated that Big Rock Point is currently an ISFSI, which is owned, but not operated, by ENO.

Response

The NRC modified the footnote in the final Director's Decision to state that ENO owns the Big Rock Point ISFSI.

3. *Reference to Cooper Nuclear Station in the Footnote on Page 2*

The footnote on page 2 of the proposed Director's Decision inaccurately stated that Entergy operated the Cooper Nuclear Station. The licensee stated that EN only provides management services to the Cooper facility and does not operate it.

Response

The NRC modified the footnote in the final Director's Decision to state that EN provides management services to Cooper Nuclear Station.

4. ADAMS Accession Number to the NRC Acknowledgment Letter of December 17, 2009

> In the proposed Director's Decision, the NRC's acknowledgement letter to the Petitioner dated December 17, 2009, referenced Agencywide Documents Access and Management System (ADAMS) Accession No. ML093440463. The licensee noted that ML093440463 is the ADAMS package and not the actual acknowledgement letter. The ADAMS accession number for the acknowledgement letter is ML093440334.

Response

The NRC modified the ADAMS accession number referenced in the Final Director's Decision to reflect the actual letter (i.e., ADAMS Accession No. ML093440334) in lieu of the ADAMS package.

5. Incorrect Resolution of the Projected Palisades Decommissioning Trust Fund

> In describing the resolution of decommissioning funding assurance for the Palisades Nuclear Plant, the proposed Director's Decision included a quote from the NRC staff's closeout letter dated December 16, 2009, stating that the long-term resolution for Palisades relied on the proposed use of SAFSTOR. The licensee noted that the NRC staff's closeout letter was inaccurate and that Palisades will not rely on SAFSTOR for accumulating decommissioning funding.

Response

The NRC Staff reviewed ENO's letter dated August 13, 2009, and confirmed that (1) ENO's response to the Staff did not rely on SAFSTOR for accumulating decommissioning funding at Palisades, and (2) the NRC's closeout letter dated December 16, 2009, inaccurately referenced Palisades' reliance on SAFSTOR. The NRC modified the final Director's Decision to delete the reference to SAFSTOR.

6. *Failure of the Proposed Director's Decision to Reference the Absence of Violations*

> In the Petitioner's electronic submittal dated December 22, 2009, which supplemented the original petition, the Petitioner stated that the NRC Petition Review Board's acknowledgement letter dated December 17, 2009, implicitly admitted that the projected shortfalls of decommissioning funding at both Vermont Yankee and River Bend represented violations of the Commission's regulations and that the NRC was remiss in not taking appropriate enforcement actions. The licensee noted that the NRC did not identify any violations associated with the projected shortfalls in decommissioning funding and that the proposed Director's Decision did not address this.

Response

The NRC modified the final Director's Decision to acknowledge that the NRC Staff did not identify any violations with respect to the projected shortfalls in decommissioning funding.

7. *Pagination of Pages 10 and 11 of the Proposed Director's Decision*

> The licensee noted that a pagination error in the proposed Director's Decision caused the same line to be printed on the bottom of page 10 and again at the top of page 11.

Response

The NRC modified the Final Director's Decision to correct the pagination error.

Cite as 74 NRC 801 (2011) **CLI-11-14**

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) **December 22, 2011**

RULES OF PRACTICE: FILINGS

We permit filings not otherwise authorized by our rules only where necessity or fairness dictates.

RULES OF PRACTICE: FILINGS

Our rules of practice permit a party to choose whether to submit a petition for review, an answer in support of the petition, or neither (that is, the filing of a petition or answer is optional).

RULES OF PRACTICE: FILINGS

We expect the parties to adhere to our page-limit requirements, or timely seek leave for an enlargement of the page limitation.

REPLY BRIEFS

Section 2.341(b)(3) does not, by its terms, limit the petitioning party to one reply only, but can fairly be read to permit one reply to each answer. Stated another way, the petitioning party may reply separately to each answer, especially considering that the answers may present different views or arguments.

REPLY BRIEFS

Replies need not be limited to rebuttal arguments. We have long held that a reply may not contain new information that was not raised in either the petition or answers, but we have not precluded arguments that respond to the petition or answers, whether they are offered in rebuttal or in support.

FINALITY

Our rules of practice permit parties to file a petition for review of licensing board full or partial initial decisions, both of which we consider to be final.

REVIEW, INTERLOCUTORY

A grant of summary disposition where other contentions are pending is not a final decision, and is appealable only upon a showing that the standards for interlocutory review have been met.

FINALITY

The basis for our allowing immediate appellate review of partial initial decisions rests on prior Appeal Board decisions permitting review of a licensing board ruling that disposes of a major segment of the case or terminates a party's right to participate.

REVIEW, INTERLOCUTORY

A party seeking interlocutory review must show that the issue to be reviewed: (i) threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision; or (ii) affects the basic structure of the proceeding in a pervasive or unusual manner.

REVIEW, INTERLOCUTORY

Our disfavor of piecemeal appeals leads us to grant interlocutory review only upon a showing of extraordinary circumstances.

REVIEW, INTERLOCUTORY

Parties should not seek interlocutory review by invoking the grounds under which the Commission might exercise its supervisory authority.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NEPA is a procedural statute — although it requires a "hard look" at mitigation measures, it does not, in and of itself, provide the statutory basis for their implementation.

LICENSING BOARDS, AUTHORITY

Licensing boards lack authority to direct the Staff's nonadjudicatory actions.

MEMORANDUM AND ORDER

Entergy Nuclear Operations, Inc. (Entergy) has filed a petition for review of a Licensing Board decision granting summary disposition of Contention NYS-35/36 in favor of the State of New York.[1] For the reasons set forth below, we find that Entergy's appeal is interlocutory in nature, and must await the Board's final decision in this proceeding. We deny the petition for review.

I. BACKGROUND

This proceeding concerns Entergy's application to renew the operating licenses for Indian Point Nuclear Generating Units 2 and 3 for an additional 20 years. In response to a notice of opportunity to request a hearing published in the *Federal Register,* several petitioners filed hearing requests. The Board admitted New York, Riverkeeper, and Hudson River Sloop Clearwater, Inc., as parties to the proceeding;[2] and the State of Connecticut, Westchester County, the Village

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[1] Applicant's Petition for Review of LBP-11-17 Granting Summary Disposition of Consolidated Contention NYS-35/36 (July 29, 2011) (Petition).

[2] LBP-08-13, 68 NRC 43, 217 (2008).

of Buchanan, the Town of Cortlandt, and the City of New York through the New York City Economic Development Corporation, as interested governmental participants.[3] After consolidating four, the Board admitted thirteen of the initially proposed contentions.[4] These initial admitted contentions since have been supplemented and revised, such that fourteen admitted contentions are now pending before the Board.[5]

At issue here is a consolidated version of two new contentions that New York submitted in response to a reanalysis of severe accident mitigation alternatives (SAMAs) that Entergy filed after the Staff issued its draft Supplemental Environmental Impact Statement (DSEIS).[6] Last summer, the Board admitted and consolidated the two contentions, but narrowed their scope. The Board limited the single contention, NYS-35/36, to the claims that Entergy has not provided a sufficiently complete SAMA analysis for the Staff to perform the requisite "hard look" under the National Environmental Policy Act (NEPA), and that, to satisfy NEPA, the Staff must either require Entergy to implement the "plainly"

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[3] *Id.*; Memorandum and Order (Authorizing Interested Governmental Entities to Participate in This Proceeding) (Dec. 18, 2008) at 2 (unpublished). *See generally* 10 C.F.R. § 2.315(c). Connecticut has been involved in litigation of Contention NYS-35/36 from its inception. After the Board denied Connecticut's request for hearing, Connecticut requested to participate as an interested government with respect to a number of the admitted contentions. Request of the State of Connecticut for an Opportunity to Participate as an Interested Government Body in Proceeding and Hearing on Relicensing of Indian Point Units 2 and 3 (Sept. 25, 2008) at 3. Connecticut supported the admission of Contention NYS-35/36, as well as New York's motion for summary disposition of NYS-35/36. Answer of the Attorney General of the State of Connecticut to State of New York's Motion for Leave to File New and Amended Contentions Concerning the December 2009 Reanalysis of Severe Accident Mitigation Alternatives (Apr. 1, 2010) at 4-6; Response of Attorney General of Connecticut in Support of New York's Motion for Summary Disposition of Consolidated Contention NYS-35/36 (Feb. 3, 2011) at 3.

[4] LBP-08-13, 68 NRC at 218-20. The contentions are: (1) NYS-5; (2) NYS-6/7; (3) NYS-8; (4) NYS-9; (5) NYS-12; (6) NYS-16; (7) NYS-17; (8) NYS-24; (9) NYS-25; (10) NYS-26A, consolidated with Riverkeeper TC-1A; (11) Riverkeeper TC-2; (12) Riverkeeper EC-3, consolidated with Clearwater EC-1; and (13) Clearwater EC-3. *Id.*

[5] *See infra* note 58.

[6] State of New York's Motion for Leave to File New and Amended Contentions Concerning the December 2009 Reanalysis of Severe Accident Mitigation Alternatives (Mar. 11, 2010); Statement of David Chanin (Mar. 11, 2010); State of New York's New and Amended Contentions Concerning the December 2009 Severe Accident Mitigation Alternatives Reanalysis (Mar. 11, 2010). The reanalysis was submitted 1 year after the Staff issued the DSEIS. *See* Letter from Fred Dacimo, Vice President, License Renewal, Entergy Nuclear Northeast, to U.S. NRC (Dec. 11, 2009) (ADAMS Accession No. ML093580089); NUREG-1437, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3, Draft Report for Comment" (Dec. 2008) (ADAMS Accession No. ML083570036 (package)).

cost-beneficial SAMAs by imposing them as a license condition or explain why it would not require their implementation.[7]

Entergy and the Staff each filed petitions for interlocutory review of the Board's decision admitting Contention NYS-35/36.[8] Although we noted that "[p]ortions of the Board's decision appear[ed] problematic," we found that neither Entergy nor the Staff had shown that interlocutory review was warranted.[9] We rejected as grounds for appeal the "'mere potential for legal error'" in the Board's decision and the possibility that the contention "may call for further 'explanation' of the SAMA analysis conclusions."[10] Moreover, consistent with settled Commission precedent, we did not find the potential for increased litigation delay and expense sufficient to justify review of the Board's contention admissibility decision.[11] We therefore denied the petitions without prejudice to Entergy's and the Staff's ability to seek review after the Board issued a final decision in the case.[12] The Staff subsequently revised and expanded the SAMA discussion in its final supplemental environmental impact statement (FSEIS) in response to the Board's contention admissibility decision.[13]

After the Staff revised the SAMA analysis and issued the FSEIS, New York filed a motion for summary disposition of Contention NYS-35/36.[14] Entergy and the Staff filed cross-motions for summary disposition.[15] In LBP-11-17, the Board granted New York's motion, finding that no genuine issue of material fact remained in dispute and that New York was entitled to judgment as a matter of law.[16] The Board denied Entergy's and the Staff's cross-motions.[17] Noting that Entergy plans to conduct additional cost-benefit analyses "outside of the license

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[7] *See* LBP-10-13, 71 NRC 673, 697-98, 702 (2010).

[8] Applicant's Petition for Interlocutory Review of LBP-10-13 (July 15, 2010); NRC Staff's Petition for Interlocutory Review of the Atomic Safety and Licensing Board's Decision Admitting New York State Contentions 35 and 36 on Severe Accident Mitigation Alternatives (LBP-10-13) (July 15, 2010).

[9] CLI-10-30, 72 NRC 564, 568-69 (2010).

[10] *Id.* at 569.

[11] *Id.*

[12] *Id.*

[13] *See* "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 38, Regarding Indian Point Nuclear Generating Unit Nos. 2 and 3" (Final Report), NUREG-1437 (Dec. 2010), at 5-11 to 5-12 (ADAMS Accession No. ML103270072 (package)) (FSEIS).

[14] State of New York's Motion for Summary Disposition of Consolidated Contention NYS-35/36 (Jan. 14, 2011).

[15] Applicant's Consolidated Memorandum in Opposition to New York State's Motion for Summary Disposition of Contention NYS-35/36 and in Support of Its Cross-Motion for Summary Disposition (Feb. 3, 2011); NRC Staff's (1) Cross-Motion for Summary Disposition, and (2) Response to New York State's Motion for Summary Disposition, of Contention NYS-35/36 (Severe Accident Mitigation Alternatives) (Feb. 7, 2011).

[16] LBP-11-17, 74 NRC 11, 26-28 (2011).

[17] *Id.* at 15.

renewal process,"[18] the Board held that "Entergy's licenses cannot be renewed unless and until the NRC Staff reviews Entergy's completed SAMA analyses" and: (1) "either incorporates the result of these reviews into the FSEIS or . . . provide[s] a valid reason for recommending the renewal of the licenses before the analysis of potentially cost-effective SAMAs is complete";[19] and (2) either requires Entergy to implement cost-beneficial SAMAs or explains why it is not requiring Entergy to implement cost-beneficial SAMAs.[20]

Entergy now seeks review of LBP-11-17, arguing that it is the equivalent of a partial initial decision, and thus is final and reviewable.[21] Entergy also argues that in the alternative, the petition meets the standards for interlocutory review, and, failing that, asks that we exercise our supervisory authority over adjudicatory proceedings and review the Board's decision *sua sponte*.[22] The Staff filed an answer arguing that interlocutory review of LBP-11-17 is appropriate.[23] New York and Connecticut oppose the petition for review, asserting that it is not ripe and does not meet the standards for interlocutory review.[24] Entergy filed separate replies to New York and Connecticut's and the Staff's answers.[25]

Also before us are New York and Connecticut's motion for leave to file a reply to the Staff's answer,[26] their motion to strike Entergy's reply to the Staff's answer,[27] and New York's request for oral argument on the merits of Entergy's petition in the event we grant review.[28] Because we deny the petition for review,

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[18] *Id.* at 25-26 (citing FSEIS at G-48).

[19] *Id.* at 27.

[20] *Id.* at 26-27.

[21] Petition at 6-7.

[22] *Id.*

[23] NRC Staff's Answer to Applicant's Petition for Review of LBP-11-17 Granting Summary Disposition of Consolidated Contention NYS-35/36 (Aug. 11, 2011) at 6 (Staff Answer).

[24] The State of New York and the State of Connecticut's Joint Answer in Opposition to Entergy's Petition for Interlocutory Review of LBP-11-17 (Aug. 11, 2011) at 22-24.

[25] Applicant's Reply to the Joint Answer of New York State and Connecticut to Entergy's Petition for Review of LBP-11-17 (Aug. 16, 2011) (Entergy Reply to New York and Connecticut's Answer); Applicant's Reply to the NRC Staff's Answer to Entergy's Petition for Review of LBP-11-17 (Aug. 16, 2011) (Entergy Reply to the Staff's Answer).

[26] The State of New York and the State of Connecticut's Combined Motion for Leave to File a Brief Reply to NRC Staff's Answer to Applicant's Petition for Review of LBP-11-17 (Aug. 16, 2011) (Motion to File Reply); The State of New York and the State of Connecticut's Combined Reply to NRC Staff's Answer in Support of Entergy's Petition for Interlocutory Review of LBP-11-17 (Aug. 16, 2011).

[27] The State of New York and the State of Connecticut's Combined Motion to Strike Entergy's Unauthorized Reply in Support of NRC's Answer to Entergy's Petition for Review (Aug. 17, 2011) (Motion to Strike).

[28] The State of New York's Request for Oral Argument on the Merits of Entergy's Petition for Review Should the Commission Accept Interlocutory Review (Aug. 11, 2011).

New York's request for oral argument is moot.[29] Before we provide our reasoning for declining to take review at this time, however, we address the other two motions.

II. DISCUSSION

A. New York and Connecticut's Motion to File a Reply

New York and Connecticut argue that we should allow their reply to the Staff because the Staff's answer included information that "goes beyond the four corners of Entergy's Petition," making it "the functional equivalent of an untimely petition for review."[30] In particular, New York and Connecticut respond to the Staff's assertion that it will not comply with LBP-11-17 unless we direct it to do so, as well as the Staff's argument in favor of interlocutory review on the grounds that it will not act until we weigh in on the Board's decision.[31] New York and Connecticut point to principles of fairness, and argue that because the Staff raised these arguments for the first time in its answer, they will be unable to respond unless their reply is permitted.[32] Entergy and the Staff oppose the motion, arguing that the reply is not expressly authorized under 10 C.F.R. § 2.341.[33] The Staff maintains that the information in its answer is substantially similar to its prior filings concerning Contention NYS-35/36.[34]

We permit filings not otherwise authorized by our rules only where "necessity or fairness dictates."[35] Under the circumstances presented here, we are persuaded

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[29] Consequently, we also need not address New York and Connecticut's request that we establish particular briefing procedures. *See* Motion to File Reply at 2.

[30] *Id.* at 1.

[31] *Id.* at 2.

[32] *See id.* at 1, 4.

[33] Entergy's Answer to New York State's and Connecticut's (1) Motion to Strike and (2) Motion for Leave to File a Reply (Aug. 18, 2011) at 3 (Entergy Answer to Motions); NRC Staff's Answer to "The State of New York and the State of Connecticut's Combined Motion for Leave to File a Brief Reply to NRC Staff's Answer to Applicant's Petition for Review of LBP-11-17" (Aug. 17, 2011) at 5 (Staff Answer to Reply Motion). *See generally* 10 C.F.R. § 2.341.

[34] Staff Answer to Reply Motion at 2-3. In addition, both Entergy and the Staff take issue with New York and Connecticut's interpretation of the Staff's answer as an indication that the Staff does not intend to comply with LBP-11-17. Entergy Answer to Motions at 3; Staff Answer to Reply Motion at 3.

[35] *U.S. Department of Energy* (High-Level Waste Repository), CLI-08-12, 67 NRC 386, 393 (2008). *See also AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 677 (2008).

by New York and Connecticut's claims.[36] The Staff asserts that, absent our direction, it "is not inclined to expend agency resources on actions [that] the Staff firmly believes are not required by NRC regulations."[37] This assertion is part of a larger argument that interlocutory review is warranted.[38]

Because it relates to the Staff's position on the reviewability of the Board's decision in LBP-11-17, the Staff's statement regarding its inclination not to revise the FSEIS is presented for the first time in the Staff's answer.[39] And because it is the Staff, not the applicant, that bears the responsibility for complying with NEPA, this position was not presented in Entergy's petition for review. We therefore grant New York and Connecticut leave to file a reply, and consider their reply here.[40]

B. New York and Connecticut's Motion to Strike Entergy's Reply to the Staff's Answer

New York and Connecticut ask that we strike Entergy's reply to the Staff's answer, arguing that: (1) section 2.341(b)(3) permits the filing of a single reply brief totaling five pages, not two briefs totaling more than ten pages;[41] (2) Entergy's reply to the Staff's answer raises new claims of irreparable impact that were not raised in its petition for review; and (3) the reply improperly "embraces

[36] We do not consider the Staff's answer to be an "untimely petition for review," as New York and Connecticut would have it. Our rules of practice permit a party to choose whether to submit a petition for review, an answer in support of the petition, or neither (that is, the filing of a petition or answer is optional). *See* 10 C.F.R. § 2.341(b)(1)-(3). Here, the Staff chose to file an answer in support of Entergy's petition rather than filing its own petition for review.

[37] Staff Answer at 11 n.39.

[38] *See generally id.* at 8-12.

[39] *See Oyster Creek,* CLI-08-28, 68 NRC at 677. *Cf.* 10 C.F.R. § 2.323(c) (allowing replies to motions that would otherwise be unauthorized if there are "compelling circumstances, such as where the moving party demonstrates that it could not reasonably have anticipated the arguments to which it seeks leave to reply").

[40] New York and Connecticut raise one additional Staff argument to which they wish to respond. *See* Motion to File Reply at 3-4. They assert that for the first time the Staff relies on the Generic Environmental Impact Statement "small" impact finding for severe accidents as a rationale for not requiring Entergy to implement any cost-beneficial SAMAs. *Id.* at 3. *See generally* 10 C.F.R. Part 51, Subpart A, Appendix B. Because this argument goes beyond the issue that we address today — whether review is appropriate at this time — we need not consider it here.

[41] Motion to Strike at 1. In the same vein, New York and Connecticut point out that Entergy's reply to their answer exceeds the five-page limit in section 2.341(b)(3). *Id.* at 1 n.1. Although Entergy should have requested an expansion of the page limit, we will not strike Entergy's reply in this instance. Going forward, however, we expect the parties to adhere to our page-limit requirements, or timely seek leave for an enlargement of the page limitation.

and restates" the Staff's arguments rather than rebuts previous arguments.[42] Entergy opposes the motion to strike.[43] Entergy asserts that section 2.341(b)(3) permits the filing of a single reply to each answer, and asserts that it appropriately elaborated on and amplified issues in its petition and in the Staff's answer.[44] The Staff also opposes the motion to strike, and raises arguments similar to Entergy's.[45]

We grant in part, and deny in part, the motion to strike. First, section 2.341(b)(3) does not, by its terms, limit the petitioning party to one reply only, but can fairly be read to permit one reply to *each* answer. Stated another way, the petitioning party may reply separately to each answer, especially considering that the answers may present different views or arguments. Second, replies need not be limited to rebuttal arguments. We have long held that a reply may not contain new information that was not raised in either the petition or answers, but we have not precluded arguments that respond to the petition or answers, whether they are offered in rebuttal or in support.[46] We therefore deny the motion to strike as to these arguments.

However, we agree with New York and Connecticut that Entergy has exceeded the proper scope of a reply with its new material relating to its claims of "immediate and serious irreparable impact." In its petition for review, Entergy offers nothing on the threat of "an immediate and serious irreparable impact" other than a brief mention as one of the standards for interlocutory review and a conclusory statement that "serious and irreparable harm" will result from the Board's decision.[47] The Staff's answer focuses on the second interlocutory review factor under section 2.341(f)(2), arguing that the Board's decision "affects the basic structure of th[e] proceeding in a pervasive or unusual manner."[48]

In contrast, Entergy's reply raises new arguments regarding litigation costs, difficulty making business decisions, and grid reliability, all of which Entergy claims would seriously and irreparably harm Entergy and the public if we do not

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[42] Motion to Strike at 1-2.

[43] Entergy Answer to Motions at 1.

[44] *Id.* at 1-2.

[45] *See* NRC Staff's Answer to "The State of New York and the State of Connecticut's Combined Motion to Strike Entergy's Unauthorized Reply in Support of NRC's Answer to Entergy's Petition for Review" (Aug. 19, 2011; corrected Aug. 22, 2011) at 1-4. The Staff suggests, however, that we may disregard the portion of Entergy's reply that discusses irreparable impact because it could be interpreted as new material that is thus outside the proper scope of a reply. *See id.* at 3-4 (citing *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-06-22, 64 NRC 37, 46 (2006)).

[46] *See, e.g., USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 439 (2006); *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004); *Sequoyah Fuels Corp.,* CLI-94-4, 39 NRC 187, 189 n.1 (1994).

[47] *See* Petition at 6-7. *See generally* 10 C.F.R. § 2.341(f)(2).

[48] Staff Answer at 8-9.

review the Board's decision now.[49] These arguments were not raised in Entergy's petition or the Staff's answer, and are therefore outside the appropriate scope of a reply. Accordingly, we strike the portions of Entergy's reply that discuss its "irreparable impact" claims, and do not consider them here.[50]

C. Entergy's Petition for Review

As discussed above, Entergy argues that three separate regulatory provisions support review of the Board's decision at this time: (1) section 2.341(b)(1) — as a petition for review; (2) section 2.341(f)(2) — as a petition for interlocutory review; and (3) section 2.341(a)(2) — under our *sua sponte* review authority.[51] Entergy first argues that the Board's decision in LBP-11-17 is a *de facto* partial initial decision because the Board ordered that Entergy's licenses "'cannot be renewed'" until the Staff revises the SAMA analysis in the FSEIS to the Board's satisfaction.[52] Thus, according to Entergy, "regardless of the outcome of the forthcoming hearing on the remaining admitted contentions," the receipt of its renewed licenses is in doubt.[53] Similarly, Entergy asserts that the Board's ruling "has terminated further litigation on the merits of Contention NYS-35/36, forcing the Staff to take actions [that] are contrary to law."[54]

Our rules of practice permit parties to file a petition for review of licensing board full or partial initial decisions, both of which we consider to be final.[55] As we reaffirmed in the *Pilgrim* license renewal proceeding, a grant of summary disposition where other contentions are pending is not a final decision, and is appealable only upon a showing that the standards for interlocutory review have been met.[56] Entergy's arguments to the contrary are unavailing.

In *Pilgrim,* we explained that the basis for our allowing immediate appellate review of partial initial decisions rests on prior Appeal Board decisions permitting

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[49] *See* Entergy Reply to the NRC Staff's Answer at 1-3.

[50] Entergy's reply to New York and Connecticut's answer contains a statement regarding harm to Entergy and the public that references grid reliability. *See* Entergy Reply to New York and Connecticut's Answer at 2. New York and Connecticut did not move to strike Entergy's reply to their answer. Nonetheless, our case law is clear. As discussed above, we do not consider new material raised for the first time in a reply. *See supra* note 46. This statement therefore does not factor into our analysis of the reviewability of Entergy's petition.

[51] Petition at 6-7.

[52] *Id.* at 4, 7 (quoting LBP-11-17, 74 NRC at 27).

[53] *Id.* at 7.

[54] *Id.*

[55] *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-11-10, 74 NRC 251, 255 (2011); *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-08-2, 67 NRC 31, 34 (2008). *See generally* 10 C.F.R. § 2.341(b)(1).

[56] *Pilgrim,* CLI-08-2, 67 NRC at 34.

review of a licensing board ruling that "'disposes of . . . a major segment of the case or terminates a party's right to participate.'"[57] The Board's decision in LBP-11-17 did neither of these things. Granting summary disposition of Contention NYS-35/36 did not terminate any party's right to participate in this proceeding. Further, not including Contention NYS-35/36, there are fourteen admitted contentions currently pending before the Board, two of which also raise SAMA-related issues.[58] The resolution of one contention, where there are fourteen other contentions pending, does not constitute the disposition of a "major segment of the case." We cannot know at this point whether the Board will resolve the remaining contentions by imposing conditions on the renewed licenses, by requiring the Staff to revise its SEIS in other capacities, or by resolving some or all of the remaining contentions in favor of Entergy. Or the Board might deny the renewed licenses after resolving one or more of the other contested issues in favor of the intervenors. In other words, the outcome of a decision on Entergy's license renewal application is undetermined.[59] The Board's decision granting New York's motion for summary disposition is not a "final" decision.

For similar reasons, we are not inclined to grant interlocutory review. A party seeking interlocutory review must show that the issue to be reviewed:

> (i) Threatens the party adversely affected by it with immediate and serious irreparable impact which, as a practical matter, could not be alleviated through a petition for review of the presiding officer's final decision; or
>
> (ii) Affects the basic structure of the proceeding in a pervasive or unusual manner.[60]

Our disfavor of piecemeal appeals leads us to grant interlocutory review only upon a showing of "extraordinary circumstances."[61] With fourteen other contentions pending before the Board, the resolution of which likely will lead to additional appeals, the situation presented here would result in the very piecemeal litigation that we wish to avoid.

Moreover, Entergy has not shown that the circumstances presented here outweigh our disfavor of interlocutory appeals. Entergy asserts that "the Board's

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[57] *Id.* at 34 n.14 (quoting *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-731, 17 NRC 1073, 1074-75 (1983)).

[58] The fourteen contentions are: (1) NYS-5; (2) NYS-6/7; (3) NYS-8; (4) NYS-9/33/37; (5) NYS-12/12A/12B/12C; (6) NYS-16/16A/16B; (7) NYS-17/17A/17B; (8) NYS-24; (9) NYS-25; (10) NYS-26B/Riverkeeper TC-1B; (11) Riverkeeper TC-2; (12) Riverkeeper EC-3/Clearwater EC-1; (13) Clearwater EC-3; and (14) Riverkeeper EC-8. Of these, two pertain to the SAMA review — NYS-12/12A/12B/12C and NYS-16/16A/16B.

[59] *Cf. Levy County,* CLI-11-10, 74 NRC at 254-56.

[60] 10 C.F.R. § 2.341(f)(2).

[61] *See, e.g.,* CLI-09-6, 69 NRC 128, 132, 137 (2009); *Pilgrim,* CLI-08-2, 67 NRC at 35.

ruling in LBP-11-17 fundamentally distorts the very fabric of the NRC's license renewal regulatory framework[, which] draws a clear line between the agency's safety review under the Atomic Energy Act . . . and Part 54 and its environmental review under NEPA and Part 51."[62] Entergy also expresses concern that the Board's decision "compel[s] further NRC Staff analysis and implementation" based on "a profound reversal of NRC policy and law," when the issue is "more appropriately addressed by the Commission."[63] Similarly, the Staff claims that we should not delay in reviewing LBP-11-17 because "even if the Staff were to revise its already augmented [SEIS]," it is uncertain whether the Board would find another revision sufficient for the purposes of NEPA.[64] But these are fundamentally challenges to the Board's decision as legal error. We see no practical difference between the situation here and our earlier denial of Entergy's and the Staff's petitions for interlocutory review of the Board's decision admitting Contention NYS-35/36. Arguments raising "the mere potential for legal error" or the need for the Staff to provide additional analysis or explanation in the SEIS do not compel us to take review now.[65] Entergy will have the opportunity to raise these issues at the end of the case.[66]

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[62] Petition at 7.

[63] *Id.* at 8.

[64] Staff Answer at 10-11.

[65] *See* CLI-10-30, 72 NRC at 568.

[66] Entergy also argues that we should take review because the Board's decision "is likely to trigger further contentions and similar rulings in other proceedings." Petition at 8 n.22. But this is a possible result of any licensing board decision. If we were to base interlocutory review on the likelihood of contentions triggered by a board's decision, we would find ourselves granting interlocutory review in virtually every case, thereby diminishing our interlocutory review standards. Additionally, Entergy argues that "one of the core issues presented in this appeal — the process by which the NRC Staff must analyze and implement specific measures for mitigating severe accidents — is directly related" to our deliberations concerning the recent nuclear events in Japan. *Id.* at 8 n.23. But this is all the more reason to decline review now. We continue to consider the nuclear events in Japan, and the agency is in the process of implementing and prioritizing actions to be taken in response to the Japan events. *See Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 147-49 (2011) (describing the NRC's review activities relating to the events at the Fukushima Dai-ichi Nuclear Power Station following the March 11, 2011, earthquake and tsunami); "Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report," Commission Paper SECY-11-0124 (Sept. 9, 2011) (ADAMS Accession Nos. ML11245A127, ML11245A144) (paper and attachment); Staff Requirements — SECY-11-0124 — Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report (Oct. 18, 2011) (ADAMS Accession No. ML112911571); "Prioritization of Recommended Actions to Be Taken in Response to Fukushima Lessons Learned," Commission Paper SECY-11-0137 (Oct. 3, 2011) (ADAMS Accession Nos. ML11269A204, ML11272A203) (paper and attachment). The nexus of the events at Fukushima Dai-ichi to this contention is not clear. However, to the extent site-specific issues related to the Fukushima events and associated with Contention NYS-35/36 come into play, we expect to be well equipped to address any such issues at the time the Board issues its final decision in this case.

Finally, we reject Entergy's suggestion that we exercise our supervisory authority and review the Board's decision *sua sponte.* We have twice reminded the parties in this proceeding that they "should not seek interlocutory review by invoking the grounds under which the Commission might exercise its supervisory authority."[67]

Before we conclude, we note that NEPA is a procedural statute — although it requires a "hard look" at mitigation measures, it does not, in and of itself, provide the statutory basis for their implementation.[68] In granting New York's motion for summary disposition of Contention NYS-35/36, the Board was careful not to *require* that the Staff impose the cost-beneficial SAMAs as a condition on the renewal of Entergy's licenses.[69] Rather, it provided the Staff with an option to *explain* further its reasoning for not requiring implementation of cost-beneficial SAMAs in the context of this license renewal review. To the extent the Board would have the Staff elaborate on its analysis, the Board's decision, in our view, does not appear patently unreasonable.[70]

III. CONCLUSION

For the reasons set forth above, we *grant in part* New York and Connecticut's motion for leave to file a reply, *grant in part and deny in part* New York and Connecticut's motion to strike Entergy's reply to the Staff's answer, *deny* Entergy's petition for review of LBP-11-17 without prejudice to Entergy's ability

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[67] CLI-10-30, 72 NRC at 569 n.32 (citing CLI-09-6, 69 NRC at 138). *See also Carolina Power and Light Co.* (Shearon Harris Nuclear Power Plant), CLI-00-11, 51 NRC 297, 299 (2000). The parties should limit their requests for our review to those set forth in our rules. In any event, the circumstances presented here are not sufficiently compelling to merit an exercise of our inherent supervisory authority.

[68] *See Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 353 n.16 (1989) ("Because NEPA imposes no substantive requirement that mitigation measures actually be taken, it should not be read to require agencies to obtain an assurance that third parties will implement particular measures.").

[69] *See* LBP-11-17, 74 NRC at 26-27.

[70] *See Methow Valley,* 490 U.S. at 352-53. The Staff asserts that the Board has no authority to supervise the Staff in its regulatory review. *See* Staff Answer at 11 n.39. On this point, the Staff is correct. "[L]icensing boards lack authority to direct the Staff's *nonadjudicatory* actions." *See Shaw Areva MOX Services, LLC* (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 63 (2009) (emphasis added). Here, however, we view the relevant concern not as the imposition of a particular Staff action, but rather limited to the adequacy of the discussion, in the FSEIS, of the Staff's ultimate resolution of cost-beneficial SAMAs. It would be reasonable, for example, for the Staff to indicate in its FSEIS why it believes that the cost-beneficial SAMAs are appropriately excluded. It also would be reasonable to discuss in its FSEIS whether the Staff believes that any of the cost-beneficial SAMAs may warrant further consideration as a safety matter outside the license renewal review.

to seek review after the Board's final decision in this case, and *deny* New York's request for oral argument as moot.

IT IS SO ORDERED.[71]

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 22d day of December 2011.

[71] 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. 63-001**

U.S. DEPARTMENT OF ENERGY
(High-Level Waste Repository) **December 22, 2011**

MEMORANDUM AND ORDER

Before us is the Timbisha Shoshone Tribal Council's (Tribal Council) petition for review of the Board's decision declining the Tribal Council's request to be recognized as the sole authorized representative of the Timbisha Shoshone Tribe in this case, and seeking other relief.[1] This proceeding has been suspended.[2] Given the posture of the case, we decline to decide the Tribal Council's petition now. Should the proceeding be reactivated at a future time, the Tribal Council may file a motion to reinstate its petition for review.

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[1] *See generally* Timbisha Shoshone Tribe's Petition for Review of the Atomic Safety and Licensing Board Order of September 28, 2011 (Oct. 10, 2011); Order (Dismissing Timbisha Shoshone Tribal Council's Motion) (Sept. 28, 2011) (unpublished).

[2] *See* LBP-11-24, 74 NRC 368 (2011).

IT IS SO ORDERED.[3]

For the Commission

ANNETTE L. VIETTI-COOK
Secretary of the Commission

Dated at Rockville, Maryland,
this 22d day of December 2011.

[3] Commissioner Apostolakis has recused himself from this adjudication and, therefore, did not participate in this matter. *See* Notice of Recusal (July 15, 2010).

Cite as 74 NRC 817 (2011) **LBP-11-38**

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. 52-012-COL**
52-013-COL
(ASLBP No. 09-885-08-COL-BD01)

NUCLEAR INNOVATION NORTH AMERICA LLC
(South Texas Project, Units 3 and 4) **December 29, 2011**

In this 10 C.F.R. Part 52 proceeding regarding the application of Nuclear Innovation North America LLC (NINA or Applicant) for combined licenses (COLs) to construct and operate two new nuclear units, using the Advanced Boiling Water Reactor (ABWR) certified design, at its site in Matagorda County, Texas, after conducting an evidentiary hearing on the merits of Contention CL-2 that challenges the estimated replacement power costs used in the Applicant's Environmental Report (ER) analysis of the proposed units, the Licensing Board rules that Applicant and the NRC Staff (Staff) have carried their respective burdens of proof to demonstrate the adequacy of the environmental review in accordance with NEPA and 10 C.F.R. Part 51.

REGULATIONS: 10 C.F.R. PART 52 (SEVERE ACCIDENTS)

Severe accidents are reactor accidents more severe than design basis accidents and involve substantial damage to the reactor core. Policy Statement on Severe

Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138, 32,138 (Aug. 8, 1985). Although the likelihood of severe accidents occurring is lower than that for design basis accidents (i.e., those accidents the reactor is designed to withstand), the consequences of severe accidents are generally greater. *Id.* Design or procedural modifications that could mitigate the consequences of a severe accident are known as severe accident mitigation alternatives (SAMAs). SAMAs are somewhat broader than Severe Accident Mitigation Design Alternatives (SAMDAs), which focus on design changes and do not consider procedural modifications. A SAMDA analysis examines whether implementing a SAMDA would decrease the probability-weighted consequences of severe accidents. *See Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 291 (2010).

RULES OF PRACTICE: BURDEN OF PROOF

Generally, an applicant in a licensing proceeding, 10 C.F.R. § 2.325, must meet its burden of proof by a preponderance of the evidence. *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 521 (2008). But for NEPA contentions, the burden shifts to Staff, because the NRC, not the applicant, bears the ultimate burden of complying with NEPA. *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983).

REGULATIONS: 10 C.F.R. PART 52 (ANALYSIS OF SEVERE ACCIDENTS)

In judging the adequacy of a SAMDA analysis, the pertinent legal question becomes not whether "plainly better" SAMDA analysis assumptions or methodologies could have been employed, or whether a particular SAMDA analysis could have been refined further. *Pilgrim,* CLI-10-11, 71 NRC at 315-16 (citations omitted). Rather, the inquiry is to ascertain whether "it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost-benefit conclusions" for the SAMDA analysis. *See id.* at 316-17. The reason for this, in the Commission's words, is that "[u]ltimately, 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 credibly could or would alter" the analysis on which SAMDAs are considered. *See Entergy*

Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208-09 (2010) (citations omitted); *see also* 10 C.F.R. § 51.53(c)(3)(L).

RULES OF PRACTICE: SCOPE OF CONTENTION FOR HEARING

The scope of a contention is limited to the issues of law and fact pled with particularity in the contention and any factual and legal material in support thereof. *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-10-5, 71 NRC 90, 100 (2010); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 379 (2002); *see also Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 & n.11 (1988) (stating that the "intervenor is not free to change the focus of its admitted contention, at will, as the litigation progresses"), *aff'd in part and remanded in part on other matters, Massachusetts v. NRC,* 924 F.2d 311 (D.C. Cir.) (1991), *cert. denied,* 502 U.S. 899 (1991).

TECHNICAL ISSUES DISCUSSED

The following technical issues are discussed: Scaling SAMDA Implementation Costs (Inflation Rate, Regional Cost-of-Living Adjustment, Risk Reduction Factor), and Scaling SAMDA Implementation Benefits (Discount Rate, Power Pricing Data, Power Market Effects, Consumer Impacts, Power Price Spikes, Loss of Grid).

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FIRST PARTIAL INITIAL DECISION

(Ruling on Contention CL-2)

I. INTRODUCTION

This Partial Initial Decision (PID) concerns the application of Nuclear Innovation North America LLC (Applicant) for combined licenses (COLs) under 10 C.F.R. Part 52 that would permit the construction and operation of two new nuclear reactor units — South Texas Project (STP) Units 3 and 4, employing the Advanced Boiling Water Reactor (ABWR) certified design — on the existing South Texas site, located near Bay City, Texas.[1] The South Texas site currently houses two reactors, STP Units 1 and 2.

At issue, we rule on the merits of Contention CL-2. This contention challenges the estimated replacement power costs used in Applicant's Environmental Report (ER) analysis of STP Units 3 and 4. As admitted by the Board, Contention CL-2 states:

> 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 [Electric Reliability Council of Texas ("ERCOT")] market price spikes.[2]

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[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] *South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), LBP-10-14, 72 NRC 101, 127 (2010).

Intervenors claim that certain assumptions in the estimate of replacement power costs produce an erroneously low averted cost. Intervenors argue that underestimating the costs of replacement power in turn improperly skews the cost-benefit balance in the ER's Severe Accident Mitigation Design Alternatives (SAMDA) analysis.[3]

On August 18, 2011, this Board held an evidentiary hearing in Austin, Texas, on Contention CL-2. After considering all the evidence and legal arguments, the Board rules that Applicant and the NRC Staff (Staff) have carried their respective burdens of proof to demonstrate the adequacy of the environmental review in accordance with NEPA and 10 C.F.R. Part 51 regarding Contention CL-2. Thus, the Board rules on the merits in favor of Applicant and Staff on CL-2.

II. BACKGROUND[4]

A. Procedural History

On September 20, 2007, Applicant[5] submitted an application to the Nuclear Regulatory Commission (NRC) for COLs that would permit the construction and operation of STP Units 3 and 4. Following the NRC's docketing of that application and publication of a notice of hearing and opportunity to petition for leave to intervene in this matter,[6] Intervenors[7] jointly filed a petition that challenged several aspects of Applicant's COL application (COLA).[8] Among twenty-eight proposed contentions, Contention 21 claimed that the ER for STP Units 3 and 4 failed to consider the impacts of severe radiological accident scenarios on the

[3] Intervenors' CL Contentions Attach., Clarence L. Johnson, Ph.D., Review of Replacement Power Costs for Unaffected Units at the STP Site (Dec. 21, 2009) at 3-4.

[4] This proceeding produced a number of procedural detours that have no material bearing on the decision regarding the contention at issue here, and so we do not recite this proceeding's entire procedural history. For such an account, *see* LBP-09-21, LBP-10-14, LBP-11-7.

[5] At the outset of this proceeding, the lead applicant for the South Texas Project (STP) Units 3 and 4 was the STP Nuclear Operating Company (STPNOC). In early 2011, Nuclear Innovation North America LLC (NINA) replaced STPNOC as the lead applicant among a consortium of several. Licensing Board Order (Revising Case Caption) (Feb. 7, 2011) at 1. This Partial Initial Decision (PID) refers to NINA as the lead applicant, although at the time the Board admitted Contention CL-2, STPNOC was the lead applicant.

[6] 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. 7,934 (Feb. 20, 2009).

[7] Intervenors are three public interest organizations: the Sustainable Energy and Economic Development Coalition, the South Texas Association for Responsible Energy, and Public Citizen.

[8] Petition for Intervention and Request for Hearing (Apr. 21, 2009) (Petition).

operation of other units at the STP site.[9] The Board admitted Contention 21 on August 27, 2009.[10]

On November 11, 2009, Applicant notified the Board of revisions to the ER that added a new section 7.5S to cure the omission that Intervenors had alleged as the basis for Contention 21.[11] Shortly thereafter, on November 30, 2009, Applicant requested that the Board dismiss Contention 21 as moot based on new ER § 7.5S.[12] Intervenors opposed this request and instead requested the Board to modify Contention 21.[13] Then on December 22, 2009, Intervenors filed four new contentions, Contentions CL-1 through CL-4, arising from the new ER § 7.5S.[14] Applicant and Staff opposed these four new and revised contentions.[15]

The Board issued LBP-10-14 on July 2, 2010, in which we dismissed Contention 21 along with Intervenors' request to amend it, and denied Intervenors' request to admit Contention CL-1. However, the Board also admitted in part Intervenors' newly proffered Contentions CL-2, CL-3, and CL-4 — which were reformulated into one new contention, CL-2.[16]

On July 22, 2010, Staff moved for summary disposition of Contention CL-2, arguing that, as a matter of law, the SAMDA analysis[17] for the ABWR certified design at STP Units 3 and 4 has finality, and therefore that issues related to SAMDAs are not open for litigation in this proceeding.[18] Applicant supported Staff's motion.[19] Applicant also moved for summary disposition of Contention CL-2, arguing that the material facts demonstrate that SAMDAs are not cost-

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[9] Petition at 46.

[10] *South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), LBP-09-21, 70 NRC 581, 617-20 (2009).

[11] 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).

[12] Applicant's Motion to Dismiss Contention 21 as Moot at 1, 5 (Nov. 30, 2009).

[13] Intervenors' Response to Applicant's Motion to Dismiss Contention 21 as Moot at 1, 5 (Dec. 14, 2009).

[14] Intervenors' Contentions Regarding Applicant's Proposed Revision to Environmental Report Section 7.5S and Request for Hearing at 2-3 (Dec. 22, 2009) (Motion on Co-Location Contention).

[15] Applicant's Answer Opposing New and Revised Contentions Regarding Environmental Report Section 7.5S, at 25 (Jan. 22, 2010); NRC Staff's Answer to the Intervenors' Amended and New Accident Contentions at 1, 30 (Jan. 22, 2010).

[16] LBP-10-14, 72 NRC at 147.

[17] For a background discussion on SAMDA analyses in general as well as the subject SAMDA analysis, *see* section I.B, *infra.*

[18] NRC Staff Motion for Summary Disposition (July 22, 2010) at 14.

[19] STP Nuclear Operating Company's Answer Supporting the NRC Staff Motion for Summary Disposition of Contention CL-2, at 1, 4 (July 29, 2010).

effective even after accounting for the factors identified by the Intervenors.[20] Staff supported Applicant's motion.[21] Intervenors opposed both Applicant's and Staff's motions.[22] On February 28, 2011, the Board issued LBP-11-7,[23] denying both motions for summary disposition.[24]

Thereafter, and with Staff's publication of its FEIS in late February 2011,[25] the Board and parties agreed to expedite the environmental portion of this proceeding and set a schedule for an evidentiary hearing on the environmental contentions.[26] Under that schedule, the parties submitted prefiled direct testimony, initial position statements, and exhibits on May 9, 2011.[27] On May 31, 2011, the parties submitted rebuttal testimony, rebuttal position statements, and exhibits.[28]

On June 17, 2011, Applicant and Staff filed motions *in limine,* seeking to strike aspects of the Intervenors' prefiled direct and rebuttal testimony and

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[20] STP Nuclear Operating Company's Motion for Summary Disposition of Contention CL-2, at 27 (Sept. 14, 2010).

[21] NRC Staff Answer to Applicant's Motion for Summary Disposition of Contention CL-2, at 13-14 (Oct. 7, 2010).

[22] Intervenors' Response to Staff's Motion for Summary Disposition (Aug. 11, 2010); Intervenors' Response to Applicant's Motion for Summary Disposition of Contention CL-2 (Oct. 8, 2010).

[23] In addition to addressing CL-2, LBP-11-7 also admitted a new contention, DEIS-1-G, that challenged the DEIS's need for power analysis as failing to account for the reduced demand that would result from the adoption of an energy efficient building code in Texas. LBP-11-7, 73 NRC 254, 294 (2011).

[24] LBP-11-7, 73 NRC at 259, 314. Staff petitioned for review of the Board's denial of summary disposition regarding CL-2 on March 15, 2011. NRC Staff Petition for Review of the Licensing Board's Decision in LBP-11-07 Denying the NRC Staff Motion for Summary Disposition (Mar. 15, 2011). Applicant did not similarly petition for review, but did answer in support of the Staff petition. [NINA's] Answer to NRC Staff Appeal of LBP-11-07 (Mar. 25, 2011). Intervenors answered in opposition on March 25, 2011. Intervenors' Answer in Opposition to NRC Staff's Petition for Review of the Licensing Board's Decision in LBP-11-07 Denying NRC Staff Motion for Summary Disposition. On September 9, 2011, the Commission denied the petition for review as premature. CLI-11-6, 74 NRC 203, 210 (2011).

[25] Nuclear Innovation North America LLC; Notice of Availability of the Final Environmental Impact Statement for South Texas Project Units 3 and 4 Combined License Application Review, 76 Fed. Reg. 11,522, 11,522 (Mar. 2, 2011); NRC Staff Status Update on Safety and Environmental Documents (Mar. 1, 2011).

[26] Licensing Board Memorandum and Order (Establishing Schedule for Evidentiary Hearing) (Mar. 11, 2011) at 1-2 (unpublished).

[27] Nuclear Innovation North America LLC's Initial Statement of Position on Contention CL-2 (May 9, 2011); NRC Staff Initial Statement of Position (May 9, 2011); Intervenors' Initial Statements of Position in Support of Contentions CL-2 and DEIS-1 (May 9, 2011).

[28] Nuclear Innovation North America LLC's Rebuttal Statement of Position on Contention CL-2 (May 31, 2011); NRC Staff Rebuttal Statement of Position (May 31, 2011); Intervenors' Consolidated Response to Applicant's and Staff's Statements of Initial Positions (May 31, 2011).

accompanying exhibits.[29] Intervenors responded to the motions, conceding that portions of testimony and certain exhibits should be excluded, but arguing that, in all other respects, the motions *in limine* should be denied.[30] Insofar as the parties agreed material was irrelevant, we granted the motions *in limine,* but in all other respects, we denied the motions.[31]

On August 18 and 19, 2011, the Board held an evidentiary hearing on CL-2 in Austin, Texas.[32] The hearing was conducted in accordance with the provisions of Subpart L to 10 C.F.R. Part 2, and none of the parties requested an opportunity to conduct cross-examination. The parties offered various exhibits including prefiled testimony and other documents for evidence[33] and the Board received live testimony from several witnesses.[34] After questioning these witnesses regarding the merits of CL-2 the Board afforded the parties an opportunity to suggest cross-examination or rehabilitation questions. In accordance with 10 C.F.R. § 2.315(a), before the hearing, the Board also entertained written limited appearance statements from members of the public in connection with the hearing.[35]

Following the August 18 evidentiary hearing, the Board adopted certain

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[29] Nuclear Innovation North America's Motion in Limine to Strike Portions of Intervenors' Initial and Rebuttal Submissions (June 17, 2011); NRC Staff Motion in Limine to Exclude Portions of Testimony and Exhibits Filed by the Intervenors (June 17, 2011).

[30] Intervenors' Consolidated Response to Applicant's & Staff's Motions in Limine (June 27, 2011) at 1-2.

[31] Order (Ruling on Motions in Limine) (July 14, 2011) at 3-4 (unpublished).

[32] The hearing on DEIS-1-G was delayed from August 2011 until October 31, 2011, to accommodate Intervenors' witness, who experienced a medical emergency at the time of the first hearing.

[33] For the exhibit numbers used in this PID and reflected in the agency's electronic hearing docket, evidence was described as follows: (1) a three-character party identifier, i.e., STP, NRC, and INT; followed by (2) six-character evidence identifier — designed to reflect the sequential number of the exhibit and whether it was revised subsequent to its original submission as a prefiled exhibit, e.g., evidentiary exhibit INTR20045 admitted at the August 2011 hearing is the second revised version of prefiled exhibit INT000045; (3) followed by a two-character identifier, here "00" (where there is a mandatory/uncontested portion of a proceeding, the identifier would indicate that the exhibit was utilized in the mandatory/uncontested portion of a proceeding, i.e., MA); followed by (4) the designation BD01, which indicates that this Licensing Board, i.e., BD01, was involved in its identification and admission. Accordingly, the official designation for Intervenors' prefiled rebuttal testimony on CL-2, referenced above, is INTR20045-00-BD01. But for simplicity, we will refer to all admitted exhibits by their initial nine-character designation only, e.g., INTR20045.

[34] Tr. at 1470 (Pieniazek and Zimmerly); Tr. at 1553 (Johnson); Tr. at 1597 (Emch, Anderson, and Rishel).

[35] Atomic Safety and Licensing Board; In the Matter of Nuclear Innovation North America LLC (South Texas Project Units 3 and 4); Notice of Hearing; Opportunity to Submit Written Limited Appearance Statements; and Notice of Oral Argument 76 Fed. Reg. 44,623, 44,623 (July 26, 2011).

corrections to the hearing transcript and closed the evidentiary record for CL-2.[36] On September 23, 2011, the parties filed proposed findings of fact and conclusions of law regarding CL-2.[37]

B. ER's SAMDA Analysis[38]

Severe accidents are reactor accidents more severe than design basis accidents and involve substantial damage to the reactor core.[39] Although the likelihood of severe accidents occurring is lower than that for design basis accidents (i.e., those accidents the reactor is designed to withstand), the consequences of severe accidents are generally greater.[40] The NRC requires that applications for certified reactor designs include a probabilistic risk assessment (PRA) for severe accidents.[41] According to Applicant, a generic PRA was conducted for the ABWR certified design and accounted for a range of potential severe accident sequences that could affect plant integrity.[42]

The witnesses for Applicant stated that rather than rely exclusively on the generic ABWR PRA, Applicant updated it to include site-specific characteristics.[43] Applicant asserted that its purpose in providing this STP site-specific analysis

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[36] Licensing Board Memorandum and Order (Adopting Transcript Corrections and Partially Closing Evidentiary Record) (Sept. 8, 2011) at 1 (unpublished).

[37] [NINA's] Proposed Findings of Fact and Conclusions of Law for Contention CL-2 (Sept. 23, 2011); NRC Staff Proposed Findings of Fact and Conclusions of Law on Contention CL-2 in the Form of a Partial Initial Decision (Sept. 23, 2011); Intervenors' Proposed Findings of Fact and Conclusions of Law Concerning Contention CL-2 (Sept. 23, 2011).

[38] The following background material on SAMDA analyses in general and the STP Units 3 and 4 SAMDA analysis specifically is principally based on the undisputed testimony of Applicant and Staff witnesses. The Board recognizes that while the methodology may be derived from longstanding practice and logic, no Commission regulation and scant Commission precedent broadly delineates how a SAMDA analysis shall be performed. As a result, our review of NEPA and Part 51 compliance is necessarily specific to the STP site and the allegations of CL-2.

[39] Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, 50 Fed. Reg. 32,138, 32,138 (Aug. 8, 1985).

[40] *Id.*

[41] 10 C.F.R. § 52.47(a)(23), (27); *see also* 50 Fed. Reg. at 32,138-39.

[42] Exh. STP000013 (Environmental Report for STP Units 3 and 4, Chapter 7 (Rev. 5, Jan. 2011)) at 7.2-1.

[43] Exh. STP000011 ("Direct Testimony of Applicant Witnesses Jeffrey L. Zimmerly and Adrian Pieniazek Regarding Contention CL-2" (May 9, 2011)) at 7 (Zimmerly/Pieniazek Direct Testimony); Exh. STP000013, at 7.3-1; Exh. NRC000004 ("Prefiled Direct Testimony of Richard L. Emch, Jr., Jeremy P. Rishel, and David M. Anderson Regarding Contention CL-2" and "Affidavit of Richard L. Emch, Jr., Concerning Prefiled Testimony Regarding Contention CL-2" and "Affidavit of Jeremy P. Rishel Concerning Prefiled Testimony Regarding Contention CL-2" and "Affidavit of David M. Anderson Concerning Prefiled Testimony Regarding Contention CL-2.") at 28 (Emch/Rishel/Anderson Direct Testimony).

was (1) to disclose the impacts of severe accidents, and (2) to support severe accident mitigation alternatives (SAMA) analyses.[44]

Design or procedural modifications that could mitigate the consequences of a severe accident are known as severe accident mitigation alternatives (SAMAs). SAMAs are somewhat broader than SAMDAs, which focus on design changes and do not consider procedural modifications. As part of the ABWR certified design, Applicant stated that no potential mitigating design alternatives — SAMDAs — were identified as being cost-effective.[45]

In Section 7.5S of its ER, Applicant provided a SAMDA analysis for an accident at a single unit with multiyear outages at the other three colocated units.[46] It is these aspects of Applicant's SAMDA analysis that Intervenors have challenged in Contention CL-2.

A SAMDA analysis examines whether implementing a SAMDA would decrease the probability-weighted consequences of severe accidents.[47] According to Staff and Applicant witnesses, in general, to perform a SAMDA analysis, the cost of implementing the SAMDA is compared against the benefit provided by implementing the SAMDA.[48]

Typically, a SAMDA analysis begins with a screening test[49] to determine whether the maximum benefit from averting all severe accidents is lower than the cost of the lowest-cost SAMDA. If so, according to Applicant's witness, Mr. Zimmerly, all SAMDAs are screened out as not cost-beneficial, and hence no further SAMDA analysis is conducted.[50] On the other hand, if the screening test calculates a maximum benefit from averting all severe accidents that is greater than the cost of any of the SAMDAs, those SAMDAs might be cost-beneficial

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[44] Exh. STP000013, at 7.2-1.

[45] *Id.* at 7.3.1.

[46] *Id.* §§ 7.3, 7.5S.

[47] *See Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 291 (2010).

[48] Zimmerly/Pieniazek Direct Testimony at 8 (Zimmerly Testimony); Emch/Rishel/Anderson Direct Testimony at 9 (Emch and Rishel Testimony).

[49] Zimmerly/Pieniazek Direct Testimony at 8 (Zimmerly Testimony); Exh. STP000013, at 7.3-1 to -3; Emch/Rishel/Anderson Direct Testimony at 10-11 (Emch and Rishel Testimony). The use of a screening test is endorsed by the NRC Staff in its Environmental Standard Review Plan, NUREG-1555. Exh. STP000018 (NUREG-1555, "Standard Review Plans for Environmental Reviews for Nuclear Power Plants," Section 7.3 (Oct. 1999)) at 7.3-6. The approach is also consistent with the Staff's environmental assessment for SAMDAs generally, for the ABWR certified design in particular, and in this very proceeding. Emch/Rishel/Anderson Direct Testimony at 10-11, 34, 60-61, 65 (Emch, Rishel, and Anderson Testimony). Intervenors did not dispute this method of calculation. Rather Intervenors disputed various inputs to the calculation.

[50] Zimmerly/Pieniazek Direct Testimony at 8. Since no SAMDA can avert all risk of a severe accident the screening test artificially inflates the benefit side of the cost-benefit comparison, thus excluding only those SAMDAs clearly not cost-beneficial.

and further analysis is required beyond the screening test.[51] Stated otherwise, if the initial screening test does not screen out a SAMDA, the risk-informed benefit of implementing the SAMDA must be compared to the cost of implementing the SAMDA.

Cost: Witnesses for Applicant and Staff testified that during the ABWR certified design process, the ABWR's Technical Support Document (TSD) identified the SAMDAs that would be analyzed and estimated the costs of implementing those SAMDAs.[52] They added that after evaluating a wide variety of ABWR modifications as potential SAMDAs, the TSD narrowed the list to twenty-one (after excluding modifications already incorporated or not applicable).[53] The three lowest-cost SAMDAs for the ABWR were all estimated to cost $100,000 (1991 dollars)[54] and to correspond to modifications for improved vacuum breakers, drywell head flooding, and reactor building sprays.[55]

Benefit: Witnesses for Applicant and Staff testified that a probabilistic approach is used to estimate the maximum averted cost-risk[56] that would result from implementing a SAMDA.[57] They stated that benefits include averting the exposure costs, cleanup costs, and *replacement power costs* that would be associated with the postulated severe accident sequence and corresponding power outage.[58] They added that benefits are calculated by considering the likelihood of averting the above costs given the reactor's Core Damage Frequency.[59]

In ER § 7.5S.5, Applicant considered the economic impacts of severe accidents on colocated units for SAMDA analyses; and as noted above, one of these economic impacts is the cost of replacing the power that would otherwise be produced from STP Units 3 and 4.[60] Applicant's witness, Mr. Zimmerly, asserted that the projections of replacement power costs were based on the NRC's

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[51] Zimmerly/Pieniazek Direct Testimony at 8 (Zimmerly Testimony); Exh. STP000013, at 7.3-2.

[52] Zimmerly/Pieniazek Direct Testimony at 8 (Zimmerly Testimony); Exh. NRC00009A (Technical Support Document for the ABWR, Attachment 1 to NEPA/SAMDA Submittal for the ABWR from J.F. Quirk to R.W. Borchardt (Dec. 21, 1994). NRC00009A includes the Technical Support Document through page 30.) at 1; Emch/Rishel/Anderson Direct Testimony at 11 (Emch and Rishel Testimony).

[53] Zimmerly/Pieniazek Direct Testimony at 9 (Zimmerly Testimony); Exh. NRC00009A, at 15, 19-24; Emch/Rishel/Anderson Direct Testimony at 15-18 (Emch and Rishel Testimony).

[54] Zimmerly/Pieniazek Direct Testimony at 10 (Zimmerly Testimony); Exh. NRC00009A, at 25-26.

[55] Zimmerly/Pieniazek Direct Testimony at 10; Exh. NRC00009A, at 25-26.

[56] By cost-risk we mean the accident's probability multiplied by its cost in dollars.

[57] Zimmerly/Pieniazek Direct Testimony at 10 (Zimmerly Testimony); Exh. STP000013, at 7.3-1 to -2; Emch/Rishel/Anderson Direct Testimony at 9 (Emch and Rishel Testimony).

[58] Contention CL-2 only challenges the ER calculation of replacement power costs. As a result, other averted costs, e.g., exposure and cleanup, are undisputed facts in this proceeding.

[59] Zimmerly/Pieniazek Direct Testimony at 10 (Zimmerly Testimony); Exh. STP000013, at 7.5S-6; Emch/Rishel/Anderson Direct Testimony at 10 (Emch and Rishel Testimony).

[60] Exh. STP000013, at 7.5S-6.

guidance contained in its Regulatory Analysis Technical Evaluation Handbook, NUREG/BR-0184.[61]

Mr. Zimmerly testified that the starting point for projecting replacement power costs for the colocated units after a severe accident at the STP site was an estimate of typical short-term replacement power costs for a 910-MWe power plant, which NUREG/BR-0184 calculated to be $310,000 per day (1993 dollars).[62] He stated that Applicant assumed a hypothetical severe accident at an ABWR unit would cause an outage at the colocated ABWR unit for 6 years and an outage at the colocated STP Units 1 and 2 for 2 years.[63] The ER multiplied the estimated duration of the outage at the colocated units by the $310,000 per day value to produce a generic replacement power cost.[64]

Applying this generic replacement power cost to each unit, Mr. Zimmerly stated that the ER calculated the net present value of those costs over the life of the facility. To do so, the ER used a discount rate of 7%, and for sensitivity analysis, used a discount rate of 3%.[65] The ER then scaled up the net present value of the NUREG/BR-0184 costs (which were based on a 910-MWe reference plant) to 1350 MWe for each of the proposed STP Units 3 and 4 as well as 1280 MWe for each of the existing STP Units 1 and 2.[66] Finally, Mr. Zimmerly stated the ER multiplied the net present value of the costs by the Core Damage Frequency for an ABWR (1.56×10^{-7} per year)[67] to obtain the probability-weighted ("monetized") replacement power costs for use in the SAMDA analysis.[68]

Next, according to Mr. Zimmerly the ER added these monetized replacement power costs to the monetized costs of other impacts associated with onsite exposure and onsite cleanup to obtain the total monetized impact for each unit.[69]

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[61] Zimmerly/Pieniazek Direct Testimony at 15; Exh. STP000013, at 7.5S-6.

[62] Zimmerly/Pieniazek Direct Testimony at 15; Exh. NRC00008B (NUREG/BR-0184, Regulatory Analysis Technical Evaluation Handbook (Jan. 1997) (portions). Exh. NRC00008B includes chapter 5 and pages B.1 and B.2.) at 5.51.

[63] Exh. STP000013, at 7.5S-6; Zimmerly/Pieniazek Direct Testimony at 16; *see also* Emch/Rishel/Anderson Direct Testimony at 31 (Emch and Rishel Testimony).

[64] Exh. STP000013, at 7.5S-6; *see also* Zimmerly/Pieniazek Direct Testimony at 15-16 (Zimmerly Testimony); Emch/Rishel/Anderson Direct Testimony at 31-32 (Emch and Rishel Testimony).

[65] Zimmerly/Pieniazek Direct Testimony at 16-17; Exh. STP000013, at 7.5S-7; Exh. NRC00008B, at 5.21.

[66] Zimmerly/Pieniazek Direct Testimony at 16-17; Exh. STP000013, at 7.5S-7.

[67] The CDF of 1.56×10^{-7} per year is for internal events, while the unit operates at full power. Exh. STP000013, at 7.5S-4. The Board previously rejected other contributions to the CDF from low power, shutdown, or external events because they were so low that they were incapable of having a material impact on our analysis of CL-2. *See* LBP-10-14, 72 NRC at 119, 121.

[68] Zimmerly/Pieniazek Direct Testimony at 16; Exh. STP000013, at 7.5S-4, 7.5S-6.

[69] Zimmerly/Pieniazek Direct Testimony at 17; Exh. STP000013, at 7.5S-6; *see also* Emch/Rishel/Anderson Direct Testimony at 31 (Emch and Rishel Testimony).

Thus, having calculated all the averted costs (i.e., benefits) of implementing a SAMDA and all the costs of implementing the SAMDA (the cost), the ER determined that the lowest-cost SAMDAs ($100,000 apiece) were more costly than the total monetized impacts of a severe accident without implementing the SAMDAs ($13,377 for a 7% discount rate and $23,015 for a 3% discount rate). Therefore, the ER concluded that there are no cost-beneficial SAMDAs.[70]

C. FEIS's SAMDA Analysis

Although Staff issued its FEIS well after the filing of Contention CL-2, the FEIS does not explicitly address the issues raised by Contention CL-2. Rather, Staff incorporated by reference the Environmental Assessment (EA) for the ABWR certified design[71] and took the position that the STP site characteristics are bounded by the site parameters in the SAMDA analysis for the ABWR certified design.[72] Thus, in Staff's view, the SAMDA analysis for STP Units 3 and 4 would be resolved by rule.[73] The FEIS, however, did discuss the SAMDA analysis in sections 7.3 and 7.5S.5 of the ER,[74] concluding that "[t]he increase in monetized risk due to explicitly considering the impacts on the unaffected units is not sufficient to make any of the ABWR SAMDAs cost beneficial."[75]

III. LEGAL STANDARDS

A. Burden and Standard of Proof

Generally, an applicant in a licensing proceeding[76] must meet its burden of proof by a preponderance of the evidence.[77] But for NEPA contentions, as

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[70] Zimmerly/Pieniazek Direct Testimony at 18 (Zimmerly Testimony); Exh. STP000013, at 7.3-1; Emch/Rishel/Anderson Direct Testimony at 30 (Emch and Rishel Testimony).

[71] Exh. NRC00003C (NUREG-1937, Volumes 1 and 2, Final Environmental Impact Statement for Combined Licenses (COLs) for South Texas Project Electric Generating Station Units 3 and 4: Final Report (Feb. 2011). Exh. NRC00003C (Volume 1, from Chapter 3 through the end of Volume 1)) at 5-111 to -112.

[72] Emch/Rishel/Anderson Direct Testimony at 35 (Emch and Rishel Testimony).

[73] NRC Staff Motion for Summary Disposition (July 22, 2010) at 6; *see also* Exh. NRC00003C, at 5-112 to -113.

[74] Exh. NRC00003C, at 5-112.

[75] *Id.*

[76] 10 C.F.R. § 2.325.

[77] *Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 521 (2008) (applying a preponderance of the evidence standard to resolution of an environmental contention). Throughout this PID, all the Board's factual findings are based on a preponderance of the evidence standard.

here, the burden shifts to Staff, because the NRC, not the applicant, bears the ultimate burden of complying with NEPA.[78] Even so, as a practical matter, Staff relies heavily upon the applicant's ER in preparing its EIS.[79] Therefore, while all environmental contentions may, in a general sense, ultimately challenge the NRC's compliance with NEPA,[80] the Commission's regulations expressly permit the lodging of contentions against an applicant's ER — well before release of the NRC's NEPA documents.[81] An applicant therefore may bear the burden of proof on contentions asserting deficiencies in its ER[82] and where the applicant becomes a proponent of a particular challenged position set forth in the EIS.[83]

B. NEPA and 10 C.F.R. Part 51

The contention at issue, CL-2, arises under the National Environmental Policy Act (NEPA) and the NRC's implementing regulations.[84] NEPA requires that an agency prepare an environmental impact statement (EIS) before approving any major federal action that will significantly affect the quality of the human environment.[85] NEPA does not mandate substantive results; rather, NEPA imposes procedural restraints on agencies, requiring them to take a "hard look" at the environmental impacts of a proposed action and reasonable alternatives to that action.[86] This standard requires the agency to undertake a rigorous exploration and an objective analysis of environmental impacts. Merely offering "general statements about 'possible' effects and 'some risk' do[es] not constitute a 'hard look' absent a justification regarding why more definitive information could not

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[78] *See, e.g., Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983).

[79] *See* 10 C.F.R. §§ 51.41, 51.45(c).

[80] *Catawba,* CLI-83-19, 17 NRC at 1049.

[81] 10 C.F.R. § 2.309(f)(2).

[82] *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 338-39 (1996) (citing *Consumers Power Co.* (Midland Plant, Units 1 and 2), CLI-74-5, 7 AEC 19, 31 (1974)), *rev'd on other grounds,* CLI-97-15, 46 NRC 294 (1997).

[83] *Claiborne,* LBP-96-25, 44 NRC at 338-39 (citing *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477, 489 n.8 (1978)), *rev'd on other grounds,* CLI-97-15, 46 NRC 294 (1997).

[84] 42 U.S.C. §§ 4321-4370; 10 C.F.R. Part 51.

[85] 42 U.S.C. § 4332(2)(C).

[86] *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998); *see also Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc.,* 462 U.S. 87, 97-98 (1983) (holding that NEPA requires agencies to take a "hard look" at environmental consequences prior to taking major actions).

be provided."[87] Taking a hard look "foster[s] both informed decision-making and informed public participation," and thus ensures that the agency does not act upon "incomplete information, only to regret its decision after it is too late to correct."[88]

NEPA's "hard look," however, is tempered by a "rule of reason."[89] According to the rule of reason, an agency need only address reasonably foreseeable impacts, not those that are "remote and speculative" or "inconsequentially small."[90] After all, NEPA only requires "reasonable forecasting."[91] As the Commission stated in *Pilgrim*:

> There is no NEPA requirement to use the best scientific methodology, and NEPA "should be construed in the light of reason if it is not to demand" virtually infinite study and resources. Nor is an environmental impact statement intended to be a "research document," reflecting the frontiers of scientific methodology, studies and data. . . . And 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." In short, NEPA allows agencies "to select their own methodology as long as that methodology is reasonable."[92]

These NEPA principles apply to SAMDA analyses.[93] In judging the adequacy of a SAMDA analysis, the pertinent legal question becomes not whether "plainly better" SAMDA analysis assumptions or methodologies could have been employed, or whether a particular SAMDA analysis could have been refined further.[94] Rather, our inquiry is to ascertain whether "it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models

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[87] *Pa'ina Hawaii, LLC,* CLI-10-18, 72 NRC 56, 74 (2010) (quoting *Blue Mountains Biodiversity Project v. Blackwood,* 161 F.3d 1208, 1213 (9th Cir. 1998)).

[88] *Claiborne,* CLI-98-3, 47 NRC at 88 (quoting *Marsh v. Oregon Natural Resources Council,* 490 U.S. 360, 371 (1989)).

[89] *Louisiana Energy Services, L.P.* (National Enrichment Facility), LBP-06-8, 63 NRC 241, 258-59 (2006) (citing *Long Island Lighting Co.* (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973)); *see also Department of Transportation v. Public Citizen,* 541 U.S. 752, 767-69 (2004) (stating that the rule of reason is inherent in NEPA and its implementing regulations).

[90] *See, e.g., Shoreham,* ALAB-156, 6 AEC at 836. According to the Council on Environmental Quality (CEQ), the "rule of reason" is "a judicial device to ensure that common sense and reason are not lost in the rubric of regulation." Final Rule: "National Environmental Policy Act Regulations; Incomplete or Unavailable Information," 51 Fed. Reg. 15,618, 15,621 (Apr. 25, 1986).

[91] *Scientists' Institute for Public Information, Inc. v. AEC,* 481 F.2d 1079, 1092 (D.C. Cir. 1973); *see also Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 354-55, 359 (1989) (rejecting the notion that NEPA requires a "worst case analysis").

[92] *Pilgrim,* CLI-10-11, 71 NRC at 315-16 (citations omitted).

[93] *See id.*

[94] *See id.*

may change the cost-benefit conclusions" for the SAMDA analysis.[95] The reason for this, in the Commission's words, is that "[u]ltimately, 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 credibly could or would alter" the analysis on which SAMDAs are considered.[96]

C. Supplementing Environmental Record

As the Commission recently reaffirmed, "[b]oards frequently hold hearings on contentions challenging the Staff's final environmental review documents. . . . In such cases, '[t]he adjudicatory record and Board decision (and . . . any Commission appellate decisions) become, in effect, part of the FEIS.'"[97] In other words, Staff's review (the FEIS itself) and the adjudicatory record become the pertinent environmental record of decision.[98] Our review of CL-2 therefore encompasses all pertinent environmental analyses properly before us.

IV. FACTUAL FINDINGS AND LEGAL CONCLUSIONS

A. Scope of CL-2

Contention CL-2 challenges the ER's estimated replacement power costs used in Applicant's SAMDA evaluation for STP Units 3 and 4. As admitted by the Board, Contention CL-2 states:

> 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 [Electric Reliability Council of Texas ("ERCOT")] market price spikes.[99]

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[95] *See id.* at 316-17.

[96] *See Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208-09 (2010) (citations omitted); *see also* 10 C.F.R. § 51.53(c)(3)(L).

[97] *Nuclear Innovation North America LLC* (South Texas Project, Units 3 and 4) CLI-11-06, 74 NRC 203, 208-09 (2011) (citing *Claiborne,* CLI-98-3, 47 NRC at 89 and *Philadelphia Electric Co.* (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 705-07 (1985)).

[98] *See, e.g., Pacific Gas and Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 526 (2008), *petition for review denied on other grounds, San Luis Obispo Mothers for Peace v. NRC,* 635 F.3d 1109 (9th Cir. 2011).

[99] LBP-10-14, 72 NRC at 127.

As pled by Intervenors, CL-2 challenges only certain economic considerations relevant to the ER's SAMDA analysis. Because the scope of a contention is limited to the issues of law and fact pled with particularity in the contention and any factual and legal material in support thereof,[100] CL-2 is limited to those certain economic considerations relevant to Intervenors' contention as pled. Therefore, Intervenors' claim, that the ER § 7.5S.5 calculation of replacement power costs is deficient, encompasses the following arguments:[101]

1. Replacement power costs should be specific to the Electric Reliability Council of Texas (ERCOT) region.[102]
2. Replacement power costs should account for the increase of ERCOT market prices due to the market effects of an STP outage.[103]
3. Impacts on ERCOT consumers should have been evaluated.[104]
4. The effects of price spikes should have been addressed.[105]
5. The impacts of grid outages should have been addressed.[106]

Responding to Intervenors' arguments, Applicant and Staff raise several countervailing economic considerations — inflation rate, discount rate, and risk reduction — that are within the scope of this hearing on CL-2.

B. Evidentiary Record

1. Testimony

During the evidentiary hearing on CL-2, Applicant presented two witnesses,

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[100] *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), CLI-10-5, 71 NRC 90, 100 (2010); *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 379 (2002); *see also Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 & n.11 (1988) (stating that the "intervenor is not free to change the focus of its admitted contention, at will, as the litigation progresses"), *aff'd in part and remanded in part on other matters, Massachusetts v. NRC,* 924 F.2d 311 (D.C. Cir.), *cert. denied,* 502 U.S. 899 (1991).

[101] Other challenges to the ER's § 7.5S.5 SAMDA analysis are therefore beyond the scope of Contention CL-2 as either not in dispute or already resolved.

[102] Motion on Co-Location Contention at 7-8 (as-filed Contention CL-2). Intervenors originally pled Contention CL-2 as three contentions, Contentions CL-2, CL-3, and CL-4, that the Board consolidated and reformulated.

[103] *Id.* at 8-9 (as-filed Contention CL-3).

[104] *Id.* at 9 (as-filed Contention CL-4).

[105] *Id.* at 9 (as-filed Contention CL-4).

[106] *Id.* at 9-10 (as-filed Contention CL-4).

Jeffrey L. Zimmerly and Adrian Pieniazek, to testify on the SAMDA analysis performed in the ER, the revised analyses they performed, and the propriety of assumptions made therein and by Intervenors. Based on their respective qualifications in education and experience, Applicant's witnesses were found qualified to testify on CL-2.[107] Accordingly, the witnesses responded to the Board's questions at hearing and offered prefiled testimony.[108]

Staff presented three witnesses to testify on CL-2, Richard L. Emch, Jr., Jeremy P. Rishel, and David M. Anderson. Based on their respective qualifications in education and experience, Staff's witnesses were found qualified to testify on CL-2.[109] Accordingly, the witnesses responded to the Board's questions at hearing and offered prefiled testimony.[110]

Intervenors presented one witness to testify regarding CL-2, Clarence Johnson. Based on his qualifications in education and experience, Intervenors' witness was found qualified to testify on CL-2,[111] although not specifically on issues related to nuclear engineering, such as the events at the Fukushima Dai-ichi plant, Core Damage Frequency (CDF) calculations, and the effectiveness of SAMDAs.[112] Accordingly, the witness responded to the Board's questions at hearing and offered prefiled testimony.[113]

2. *Documentary Exhibits*

In support of its position on CL-2, Applicant offered the following exhibits: Exh. STP000002; Exhs. STP000011 through STP000013; Exh. STP000016;

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[107] Tr. at 1470; *see* Exh. STP000012 (Jeffrey L. Zimmerly Resume (May 9, 2011)) at 1; Exh. STP000002 (Adrian Pieniazek Resume (May 9, 2011)) at 1-2.

[108] Zimmerly/Pieniazek Direct Testimony; Exh. STP000030 ("Rebuttal Testimony of Applicant Witnesses Jeffrey L. Zimmerly and Adrian Pieniazek Regarding Contention CL-2" (May 31, 2011)) (Zimmerly/Pieniazek Rebuttal Testimony).

[109] Tr. at 1597; *see* Exh. NRC000005 (Statement of Professional Qualifications for Richard L. Emch, Jr.) at 1; Exh. NRC000006 (Statement of Professional Qualifications for Jeremy P. Rishel) at 1; Exh. NRC000007 (Statement of Professional Qualifications for David M. Anderson) at 1.

[110] Emch/Rishel/Anderson Direct Testimony; Exh. NRC000058 ("Prefiled Rebuttal Testimony of Richard L. Emch, Jr., Jeremy P. Rishel, and David M. Anderson Regarding Contention CL-2" and "Affidavit of Richard L. Emch, Jr., Concerning Prefiled Rebuttal Testimony Regarding Contention CL-2" and "Affidavit of Jeremy P. Rishel Concerning Prefiled Rebuttal Testimony Regarding Contention CL-2" and "Affidavit of David M. Anderson Concerning Prefiled Rebuttal Testimony Regarding Contention CL-2.") (Emch/Rishel/Anderson Direct Testimony).

[111] Tr. at 1553; Exh. INT000022 (Resume of Clarence L. Johnson) at 2.

[112] *See Duke Energy Corp.* (Catawba Nuclear Station, Units 1 and 2), CLI-04-21, 60 NRC 21, 27-28 (2004).

[113] Johnson Direct Testimony; Exh. INTR20045 (Intervenor's rebuttal testimony of Clarence Johnson) (Johnson Rebuttal Testimony).

Exhs. STP000018 through STP000027; Exh. STP000030; and Exh. STP000031. These exhibits were admitted.[114]

Staff offered the following exhibits in support of its position on CL-2: Exh. NRC000001; Exh. NRC000002; Exhs. NRC00003A, NRC00003B, NRC00003C, and NRC00003D; Exhs. NRC000004 through NRC000007; Exhs. NRC00008A and NRC00008B; Exhs. NRC00009A and NRC00009B; Exhs. NRC000010 through NRC000030; and Exhs. NRC000058 through NRC000061. These exhibits were admitted.[115]

Intervenors offered the following exhibits in support of their position on CL-2: Exhs. INT000021 through INT000040; Exh. INTR20045; Exhs. INT000046 through INT000049; Exh. INTR00050; Exhs. INT000051 through INT000054; and Exh. INTR00055. These exhibits were admitted.[116]

C. Legal Analysis and Findings

To resolve Contention CL-2, the Board addresses the scaling of SAMDA implementation costs and benefits (averted replacement power costs), based on relevant economic considerations.

1. Scaling SAMDA Implementation Costs

a. Inflation Rate

(i) RECITATION OF EVIDENCE

The testimony of witnesses for Staff, Applicant, and Intervenors contain analyses and results in 2009 dollars.[117] Yet, the SAMDA implementation costs presented in the ABWR TSD are in 1991 dollars.[118] To perform an apples-to-apples analysis, each party offered evidence as to the proper method of scaling SAMDA implementation costs from 1991 dollars to 2009 dollars.

Staff presented Mr. Anderson, who testified that the proper index for scaling SAMDA costs for inflation is the Bureau of Economic Analysis' Gross Domestic Product Implicit Price Deflator (GDP-IPD) for Nonresidential Structures.[119] Mr.

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[114] Tr. at 1456.

[115] Tr. at 1450, 1452, 1459.

[116] Tr. at 1461, 1468, 1515.

[117] Zimmerly/Pieniazek Direct Testimony at 19; Emch/Rishel/Anderson Direct Testimony at 33-34; Johnson Direct Testimony at 15-16.

[118] Exh. NRC00009B (Technical Support Document for the ABWR, attachment 1 to NEPA/SAMDA Submittal for the ABWR from J.F. Quirk to R.W. Borchardt (Dec. 21, 1994). NRC00009B begins on page 31 with "Attachment A: Evaluation of Potential Modifications to the ABWR Design.") at 47.

[119] Emch/Rishel/Anderson Direct Testimony at 37.

Anderson testified that this index is appropriate "because SAMDAs relate to structural alternatives in plant design and the GDP deflators are more specific to private capital investment than other inflation indexes such as the Consumer Price Index or the Producer Price Index."[120] Mr. Anderson also testified that the use of an inflation index based on personal consumption expenditures, as advocated by Intervenors, is not a valid approach to scaling SAMDA costs for inflation because such indices reflect retail inflation faced by persons and households, not inflation associated with large-scale capital expenditures like those of nuclear power plant construction.[121] Relying on the GDP-IPD for Nonresidential Structures, Mr. Anderson scaled SAMDA costs for inflation by a factor of 2.25.[122] Therefore, the cost of the lowest-cost SAMDA would be adjusted for inflation from $100,000 in 1991 dollars to $225,000 in 2009 dollars.[123]

Applicant presented Mr. Pieniazek and Mr. Zimmerly to address the proper factor for scaling SAMDA costs to account for inflation.[124] Mr. Pieniazek and Mr. Zimmerly testified that SAMDA costs should be converted from 1991 dollars to 2009 dollars using a multiplication factor of 1.58 from the Consumer Price Index of the Bureau of Labor Statistics (CPI),[125] which scales the lowest-cost SAMDA to $158,000 in 2009 dollars. Mr. Pieniazek and Mr. Zimmerly testified that use of the CPI is consistent with Office of Management and Budget (OMB) guidance in Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs"[126] and the approach used in the ABWR TSD.[127] However, Applicant's witnesses agreed that Staff's index, the GDP-IPD for Nonresidential Structures, "is more specific to private capital investment" than the CPI or Intervenors' inflation index and that SAMDA implementation "likely would involve more manufacturing and construction activities, rather than consumer activities."[128] Applicant's witnesses agreed that Staff's index was reasonable.[129]

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[120] *Id.*

[121] *Id.* at 40 (citing Exh. NRC000021 (Bureau of Economic Analysis, NIPA Handbook: Chapter 5: Personal Consumption Expenditures (pp. 5-1 to 5-3). (retrieved May 4, 2011)) at 5-2).

[122] *Id.* at 37 (citing Exh. NRC000018 (Bureau of Economic Analysis — National Economic Accounts, National Income and Product Accounts Table; Table 1.1.9. Implicit Price Deflators for Gross Domestic Product (retrieved Apr. 21, 2011))).

[123] *Id.* at 37.

[124] Zimmerly/Pieniazek Direct Testimony at 19.

[125] *Id.*

[126] Issued by the White House's Office of Management and Budget (OMB), Circular A-94 purports to "promote efficient resource allocation" for federal decision-making by providing guidance for conducting cost-benefit analyses. Exh. STP000016 (OMB Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs" (1992)) at 2-3.

[127] Zimmerly/Pieniazek Direct Testimony at 19 (citing Exh. NRC00009B, at 47).

[128] *Id.* at 22-23.

[129] *Id.*

According to Mr. Pieniazek and Mr. Zimmerly, Applicant used the CPI "to be more conservative, to use a more general inflation index, and to use the methodology consistent with the TSD."[130]

Intervenors presented Mr. Johnson, who testified that the proper index for scaling SAMDA costs for inflation is Core Personal Consumption Expenditures (PCE) price index.[131] Mr. Johnson testified that SAMDA costs should be converted from 1991 dollars to 2009 dollars using a multiplication factor of 1.437 from the Core PCE index.[132] According to Mr. Johnson the Core PCE index excludes volatile indexing factors that are considered by the GDP-IPD and CPI.[133] The Core PCE would escalate the lowest-cost SAMDA to $143,700 in 2009 dollars.[134]

In rebuttal, Mr. Johnson testified that although he could "understand the Staff's view that household consumer inflation should be excluded from the escalation index" and that the GDP-IDP for Nonresidential Structures would "be appropriate for inflating the overall total costs of a plant or building," it was his opinion that Staff had not demonstrated the individual SAMDA projects are composed of costs appropriately compared to the GDP-IPD for Nonresidential Structures.[135] According to Mr. Johnson, perhaps another GDP-IPD would be more appropriate, such as the Equipment and Software index or the Private Investment index.[136] At the evidentiary hearing Mr. Johnson suggested that GDP-IPD for Private Investment, which includes both nonresidential structures and equipment and software, was "probably preferable."[137] However, Mr. Johnson did not perform any calculations using this index.[138]

At the evidentiary hearing Applicant's witnesses testified that the implementation costs of a SAMDA would include the following cost components: (1) engineering design and analysis, (2) procurement, (3) manufacturing, (4) shipping, (5) developing and implementing procedures, (6) quality assurance (QA), and (7) regulatory approval by the NRC.[139] According to Mr. Zimmerly, the GDP-IDP for Nonresidential Structures would likely be more appropriate than either the CPI or the Core PCE for addressing the inflation of these cost components.[140] Mr. Johnson testified that for those seven cost components, a consumer expenditure

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[130] *Id.*
[131] Johnson Direct Testimony at 15-16.
[132] *Id.* at 16.
[133] *Id.* at 15-16.
[134] *Id.* at 16.
[135] Johnson Rebuttal Testimony at 6.
[136] *Id.* at 6-7.
[137] Tr. at 1581.
[138] Tr. at 1590.
[139] Tr. at 1480-81.
[140] Tr. at 1482-83.

index would not be the most appropriate inflation index;[141] however, Mr. Johnson also testified that he did not specifically know the breakdown of each SAMDA in terms of each of these cost components.[142]

Mr. Anderson testified that Staff witnesses chose the Nonresidential Structures index because this index applies to "major construction activities. . . . [w]hich are identified there, such as . . . additions, alterations, structural replacements, pipelines, railroad tracks, power lines and plants, dams and levies. Large industrial construction."[143] For this reason, Mr. Anderson concluded that the Nonresidential Structures index was the most relevant available index.[144] In addition, Mr. Anderson testified that because SAMDAs are alternatives to plant design that affect the entire project, SAMDAs should be viewed in the context of the overall project construction.[145] Finally, Mr. Anderson testified that the GDP-IPD Nonresidential Structures index covers the following components of SAMDA costs: design, procurement, installation, procedures, quality assurance, and licensee activities for regulatory approvals.[146]

(ii) LEGAL ANALYSIS AND FINDINGS

The Board finds that the GDP-IPD for Nonresidential Structures is a reasonable scaling factor for the inflation of SAMDA implementation costs.[147] The GDP-IPD for Nonresidential Structures is the most specific index applicable to the cost components of SAMDA implementation and is a more appropriate scaling factor than the personal consumption indices the Intervenors and Applicant propose, i.e., the Core-PCE and CPI. Although personal consumption indices are conservative when applied to scaling SAMDA implementation costs, witnesses for both Applicant and Intervenors conceded that a private investment index is better for inflating SAMDA costs than a consumer index. Furthermore, witnesses for

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[141] Tr. at 1580-81; *see also id.* at 1590 (Mr. Johnson: "I think there is merit to saying that the index should not be a consumer index and that it should be an investment index").

[142] Tr. at 1582.

[143] Tr. at 1613; *see also* Exh. NRC000022 (Bureau of Economic Analysis, NIPA Handbook: Chapter 6: Private Fixed Investment (pp. 6-1 to 6-3) (retrieved May 2, 2011)) at 6-3 (enumerating the items included within "Structures" in Row 1 of Table 6.1).

[144] Tr. at 1613.

[145] Tr. at 1608.

[146] Tr. at 1627.

[147] Regardless of this conclusion, Applicant demonstrated that no SAMDA is cost-beneficial even if inflation is scaled by the Core PCE index favored by the Intervenors along with Intervenors' other preferred assumptions. Applicant's witnesses inflated SAMDA implementation costs with a factor of 1.31, encompassing both the Core-PCE price index and a regional cost-of-living index for the area, as suggested by Mr. Johnson. Doing so, Applicant's witnesses testified, did not change the conclusion that no SAMDAs are cost-beneficial. Zimmerly/Pieniazek Direct Testimony at 22; *see also* Emch/Rishel/Anderson Direct Testimony at 38-39 (Anderson Testimony).

both Applicant and Staff testified that the Nonresidential Structures index covered the various cost components of the SAMDAs. Mr. Johnson did not contradict this testimony. Instead, Mr. Johnson conceded that he did not specifically know the breakdown of each SAMDA in terms of these cost components, and he was uncertain, based on the definition of the indices, whether SAMDA cost components appropriately fit under the Nonresidential Structures index or the Equipment and Software index. Therefore, the Board finds that the lowest-cost SAMDA is reasonably scaled for inflation from $100,000 in 1991 dollars to $225,000 in 2009 dollars.

b. Regional Cost-of-Living Adjustment

(i) RECITATION OF EVIDENCE

In addition to scaling for inflation, Intervenors' witness, Mr. Johnson testified that SAMDA implementation costs should also be adjusted to reflect local variations in the cost of living.[148] Mr. Johnson testified that it was appropriate to account for region-specific costs because "[e]ven if one assumes that materials and equipment are purchased outside the region or locality, local labor costs will be incurred; and salary and wage rates vary by region."[149] To adjust for cost-of-living differences, Mr. Johnson testified that SAMDA implementation costs should be multiplied by the ACCRA[150] cost-of-living index for the Houston area, 90.7%.[151]

In response, Applicant's witnesses, Mr. Zimmerly and Mr. Pieniazek, disagreed with this scaling because "SAMDAs generally involve components that can be manufactured anywhere in the United States, not just in the region of Texas in which the plant is located."[152] Moreover, Mr. Zimmerly and Mr. Pieniazek testified that the TSD already conservatively used lower bounding costs, such that any regional cost differences would already be accounted for in their analysis.[153]

Staff's witness, Mr. Anderson, also disagreed with the Intervenors' cost-of-living adjustment. Mr. Anderson testified that the ACCRA cost-of-living index, on which Intervenors rely, is based on data that "have been carefully

[148] Johnson Direct Testimony at 17.

[149] Johnson Rebuttal Testimony at 15.

[150] American Chamber of Commerce Research Association (now Council for Community and Economic Research).

[151] Johnson Direct Testimony at 17-18 (citing Exh. INT000027 (ACCRA Cost of Living Index, Comparative Date for 322 Urban Areas, 2009 Annual (excerpt))).

[152] Zimmerly/Pieniazek Direct Testimony at 20-21.

[153] *Id.* at 21 citing (Exh. NRC00009B, at 47-52).

chosen to reflect the different categories of consumer expenditures."[154] Rather, Mr. Anderson testified, "SAMDAs are design modifications to a nuclear power station and would not be represented by items typically purchased by persons or households."[155]

(ii) LEGAL ANALYSIS AND FINDINGS

The Board finds that it was reasonable for Applicant and Staff to omit a region-specific cost-of-living adjustment in performing their SAMDA analyses of STP Units 3 and 4. As Applicant witnesses testified, the TSD already uses lower-bound costs, thus encompassing price variations in the cost components of SAMDAs — whatever the source of the price variation. And as Staff witness testified, the cost-of-living index used by the Intervenors applies to consumer expenditures, not private capital expenditures. At the evidentiary hearing, Intervenors conceded that a consumer inflation index should not apply to SAMDA costs,[156] and could offer no reason for applying a consumer-based cost-of-living index. Further, Applicant's witnesses testified that SAMDAs generally involve components that can be manufactured anywhere in the United States, and so SAMDA implementation costs would not be subject to the consumer-based, region-specific cost-of-living differences that Intervenors sought. We agree.

c. Risk Reduction Factor

(i) RECITATION OF EVIDENCE

As described above,[157] the ER's SAMDA screening analysis compares the maximum averted cost offered by the SAMDA to the costs of implementing the SAMDA. The maximum averted cost used in that analysis assumes that each SAMDA would eliminate all risk of a severe accident.[158] Staff and Applicant witnesses, Mr. Emch, Mr. Rishel, and Mr. Zimmerly, testified that the ER's approach in this regard is conservative because "no one design change can address all possible accident sequences and reduce total accident frequency to zero."[159] A more refined SAMDA analysis would, according to Staff witnesses, examine the

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[154] Emch/Rishel/Anderson Rebuttal Testimony at 3 (citing Exh. NRC000059 (The Council for Community and Economic Research, "About the ACCRA Cost of Living Index" (retrieved on May 23, 2011))).

[155] *Id.* at 3.

[156] Tr. at 1590.

[157] *Supra* section II.B.

[158] Zimmerly/Pieniazek Direct Testimony at 23-24; Emch/Rishel/Anderson Direct Testimony at 10.

[159] Emch/Rishel/Anderson Direct Testimony at 10; *see also* Zimmerly/Pieniazek Direct Testimony at 24.

PRA to estimate the actual risk reduction expected as a result of implementing each SAMDA.[160] Both Applicant and Staff presented testimony addressing the effectiveness of the SAMDAs at reducing the risk of severe accidents. Intervenors did not controvert these new analyses. Rather, Intervenors' witness, Mr. Johnson, suggested more broadly that the TSD's SAMDA analysis should be revised from scratch, using up-to-date cost estimates and information gained since the ABWR TSD was published, including the Fukushima Dai-ichi accident.[161] Mr. Johnson also disputed the method employed by Applicant and Staff in accounting for the SAMDAs' actual risk reduction with Core Damage Frequency by asserting that Applicant and Staff did not support their analyses, and that Intervenors were not afforded an effective opportunity to respond to those analyses.[162]

Witnesses for Applicant and Staff took slightly different approaches to identify the SAMDA that comes closest to being cost-beneficial. However, their approaches were substantively similar. Applicant viewed the risk reduction factor as increasing the cost of a SAMDA, whereas Staff viewed the risk reduction factor as decreasing the benefit of a SAMDA.

Mr. Emch and Mr. Rishel for Staff reduced the benefit (averted costs) of SAMDAs to account for the percent reduction in Core Damage Frequency achieved by the SAMDA, then selected the SAMDA that came closest to being cost-beneficial among all SAMDAs.[163] According to Staff witnesses, SAMDAs that do not reduce Core Damage Frequency should not be credited with averting onsite costs — which include replacement power costs.[164] This practice is consistent with that of the ABWR design certification, which estimated averted onsite costs only for SAMDAs that reduced Core Damage Frequency.[165] SAMDAs that reduce Core Damage Frequency are preventive, while SAMDAs that do not reduce Core Damage Frequency are mitigative.[166] Mr. Emch testified that preventive SAMDAs are intended to prevent core damage, and if core damage occurs, any resulting shutdown would be substantially longer.[167] On the other hand, Mr. Emch stated that mitigative SAMDAs "reduce[ ] the amount of radioactive material . . . released."[168] In Mr. Emch's words, this means mitigative SAMDAs would beneficially affect "public exposure, property damage, occupational exposure and in reality, cleanup and decontamination, even though the equations don't show

[160] Emch/Rishel/Anderson Direct Testimony at 65.
[161] Johnson Rebuttal Testimony at 17-18.
[162] Johnson Rebuttal Testimony at 17.
[163] Emch/Rishel/Anderson Direct Testimony at 66-69.
[164] *Id.* at 67.
[165] *Id.* at 16, 19 (citing NRC00009B, at 33).
[166] *Id.* at 16.
[167] Tr. at 1641-42.
[168] Tr. at 1642.

that."[169] Regardless, Mr. Emch testified that the "overwhelming[ ] . . . contributor" to the averted cost is replacement power, and for a SAMDA to reduce this cost, the SAMDA would need to reduce Core Damage Frequency.[170]

Based on the TSD, Staff calculated the Core Damage Frequency reduction of each SAMDA. For SAMDAs that did not avert onsite costs, including replacement power costs, Staff assigned a Core Damage Frequency reduction of zero.[171] Linking these Core Damage Frequency reduction values to their respective SAMDAs, Staff's witnesses testified that the lowest-cost SAMDAs (those deemed most cost-beneficial from the screening test) do not reduce Core Damage Frequency.[172] Instead, Staff's witnesses determined that higher-cost SAMDAs reduce accident frequency, thus offering greater benefit for their cost.[173] Staff concluded that SAMDA 9b (Alternate Pump Power Source), with a cost of $2,686,500 (2009 dollars), is the SAMDA that is the closest to being cost-beneficial. It has a cost-benefit ratio of 29.3, whereas a cost-beneficial SAMDA would have a ratio less than 1.0.[174] Staff calculated that SAMDA 9b reduces Core Damage Frequency by 52.0%, and therefore Staff credited it with averting onsite costs by $91,586, and offsite costs by $45, leading to a total of $91,631 in averted costs (2009 dollars).[175]

Instead of addressing the Core Damage Frequency reduction of each SAMDA, Applicant addressed the Core Damage Frequency reduction of SAMDAs with TSD costs of up to and including $750,000 in 1991 dollars. According to Applicant witness, Mr. Zimmerly, the ABWR TSD provides the reduction of Core Damage Frequency for many of the ABWR SAMDAs.[176] The lowest-cost SAMDA for which the TSD does not provide Core Damage Frequency reduction information is SAMDA 3d (Improved Bottom Head Penetration Design), at $750,000 in 1991 dollars.[177] Mr. Zimmerly testified that according to the TSD each SAMDA costing less than $750,000 reduces Core Damage Frequency by only a small fraction — at most, a 14% reduction in Core Damage Frequency (for SAMDA 2b that costs $598,600 in 1991 dollars), while the remaining SAMDAs

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[169] Tr. at 1643.

[170] *Id.*

[171] Emch/Rishel/Anderson Direct Testimony 15-19, 66 (Emch and Rishel Testimony).

[172] *Id.* at 66 (Emch and Rishel Testimony).

[173] *Id.* at 66-69 (Emch and Rishel Testimony).

[174] *Id.* at 67 (Emch and Rishel Testimony).

[175] *Id.* at 66-69 (Emch and Rishel Testimony).

[176] The TSD did not go further and address all risk reduction factors because, according to the testimony of Mr. Zimmerly, the TSD did not identify any cost-effective SAMDAs even after conservatively assuming that each SAMDA would reduce the severe accident risk to zero, i.e., the TSD did not need to account for the actual risk reduction. Zimmerly/Pieniazek Direct Testimony at 24.

[177] *Id.*

effected a reduction of less than 10%.[178] Thus, after considering risk reduction, Mr. Zimmerly testified that all SAMDAs have a risk-adjusted cost higher than $750,000 in 1991 dollars.[179] On that basis, Mr. Zimmerly testified that the risk-adjusted lowest-cost SAMDA is bounded by the cost of SAMDA 3d, and that the cost for SAMDA 3d conservatively does not account for any risk reduction itself.[180] Even scaling from 1991 to 2009 dollars with Intervenors' preferred factor of 1.31, as Mr. Zimmerly testified, results in bounding the lowest risk-adjusted cost SAMDA in 2009 dollars (SAMDA 3d) at $982,500.[181]

Applicant's witnesses, Mr. Zimmerly and Mr. Pieniazek, testified in rebuttal about the different conclusions reached by Applicant and Staff as to which SAMDA came closest to being cost-beneficial: Applicant identified SAMDA 3d (Improved Bottom Head Penetration Design), whereas Staff identified SAMDA 9b (Alternate Pump Power Source).[182] Applicant's witnesses, testified that they took a conservative lower bounding approach by identifying SAMDA 3d and did not examine SAMDAs with costs as high as SAMDA 9b ($2,686,500 in 2009 dollars).[183] In contrast to Staff's treatment, Applicant's witnesses testified that they did not assume zero Core Damage Frequency reduction for mitigative SAMDAs. Instead Applicant conservatively assumed complete risk reduction (including for SAMDA 3d).[184] Despite these differences, Applicant's witnesses testified that "[they] agree with the rationale in the [Staff] Direct Testimony for selecting SAMDA 9b as the SAMDA that is closest to being cost beneficial."[185]

(ii) LEGAL ANALYSIS AND FINDINGS

We find that Applicant and Staff have reasonably accounted for the risk reduction offered by individual SAMDAs, rather than assuming that each SAMDA completely prevents all severe accidents. For their respective analyses, Staff and Applicant used the SAMDA identities and costs from the ABWR TSD, which was reviewed and approved by the NRC during the ABWR design certification rulemaking. Additionally, Staff's and Applicant's approach to mitigative versus preventive SAMDAs follows that taken in the ABWR TSD. Quantitatively, Staff showed that the cost of a severe accident is principally driven by replacement power. If a SAMDA merely mitigated instead of prevented core damage the

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[178] *Id.* at 25-26.
[179] *Id.* at 27.
[180] *Id.*
[181] *Id.*
[182] Zimmerly/Pieniazek Direct Testimony Rebuttal Testimony at 7-8.
[183] *Id.* at 7.
[184] *Id.*
[185] *Id.* at 7-8.

dominant cost of replacement power would not be significantly reduced. Therefore, rather than focusing on mitigative SAMDAs, Staff and Applicant reasonably focused on preventive SAMDAs and their reduction on Core Damage Frequency as a proxy for risk reduction. The Board finds that the SAMDA that comes closest to being cost-effective with this approach is SAMDA 9b with a cost of $2,686,500 (2009 dollars), as shown by Staff, agreed to by Applicant, and uncontested by the Intervenors. Applicant's original estimate bounds this value by suggesting a lowest risk-adjusted cost SAMDA in 2009 dollars (SAMDA 3d) at $982,500, even adopting Intervenors' cost scaling factors.

Finally, instead of controverting the evidence of Staff and Applicant on risk reduction or offering their own preferred approach, Intervenors suggested more broadly that the TSD's SAMDA analysis should be revised from scratch to include updated cost estimates and information gained from such events as the Fukushima Dai-ichi accident. However, issues related to the identity and costs of SAMDAs (except for escalation of costs from 1991 dollars to current dollars) are not relevant to Contention CL-2, which pertains specifically to replacement power costs. Moreover, Intervenors' argument merely challenges the ABWR design certification, wherein the ABWR TSD identifies the SAMDAs and their costs in 1991 dollars. As such, the challenge is impermissible.[186] Intervenors also contend that Applicant and Staff did not support their analyses and did not justify use of Core Damage Frequency reduction to account for risk reduction. Intervenors also claim they did not have an effective opportunity to respond to those analyses. We disagree. Based on our preceding analyses, we find that Staff and Applicant have supported their SAMDA analyses, including use of Core Damage Frequency for risk reduction. Intervenors could have affirmatively rebutted the use of risk reduction with rebuttal testimony and evidence, but they did not.

2. *Scaling SAMDA Implementation Benefits (Averted Replacement Power Costs)*

Contention CL-2 concerns the Intervenors' claim that the replacement power costs calculations in ER § 7.5S.5 are deficient because they rely on a generic value from NUREG/BR-0184 instead of (1) using ERCOT prices, (2) accounting for market effects, (3) accounting for consumer impacts, (4) accounting for price spike impacts, and (5) accounting for grid outages. The parties presented evidence addressing each of these factors. As explained below, we find that Applicant and

[186] *See* 10 C.F.R. § 2.335; *see also* 10 C.F.R. § 52.63(a)(5) (providing that in making its COL findings, the Commission will treat as resolved those matters resolved in the issuance of a design certification rule).

Staff reasonably accounted for all five economic factors, and demonstrated that there are no cost-beneficial SAMDAs.

a. Discount Rate

(i) RECITATION OF EVIDENCE

The postulated severe accident underlying CL-2 may occur any time during the 40-year lifetime of STP Units 3 and 4. Therefore, there is a 40-year time frame within which replacement power must be purchased. In order to determine the net present value of replacement power costs across that time frame, Applicant and Staff witnesses applied a discount rate to the future replacement power costs.[187]

To obtain the present value of future cash flows, it is necessary to apply a discount rate. A discount rate is used for two reasons: (1) because resources that are invested will normally earn a positive return, current consumption will be more expensive than future consumption, i.e., an investor is giving up an expected return on investment, and (2) postponed benefits have a cost because people generally prefer present consumption to future consumption.[188] The higher the discount rate, the lower is the present value of future cash flows. While witnesses for all parties agreed that it is appropriate to apply a discount rate in calculating replacement power costs,[189] they disagreed on which discount rate should be applied. Applicant's witness, Mr. Zimmerly, used a long-term 7% discount rate, with a 3% discount rate for sensitivity analysis.[190] Staff's witness, Mr. Anderson, also testified that use of a 7% discount rate, with a 3% discount rate as sensitivity analysis, is appropriate.[191] Intervenors' witness, Mr. Johnson, claimed that only a 3% discount rate should be used.[192]

Both Staff's and Applicant's witnesses, Mr. Anderson and Mr. Zimmerly, respectively, testified that the NRC and other government agencies generally

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[187] Zimmerly/Pieniazek Direct Testimony at 10-12 (Zimmerly Testimony); Emch/Rishel/Anderson Direct Testimony at 27-30, 42 (Emch, Rishel, and Anderson Testimony).

[188] Exh. NRC000060 (Office of Management and Budget Circular A-4, "Regulatory Analysis" (Sept. 17, 2003) (retrieved on May 17, 2011)) at 31-32; Exh. STP000016, at 4; Tr. 1573-76 (Johnson Testimony).

[189] *E.g.,* Zimmerly/Pieniazek Direct Testimony at 10-12 (Zimmerly Testimony); Emch/Rishel/Anderson Direct Testimony at 27, 30 (Emch and Rishel Testimony); Johnson Direct Testimony at 18-19 (Johnson Testimony).

[190] Zimmerly/Pieniazek Direct Testimony at 10-11.

[191] Tr. at 1624; Emch/Rishel/Anderson Rebuttal Testimony at 3-4.

[192] Johnson Direct Testimony at 18-19.

discount future costs with a 7% discount rate.[193] As these witnesses testified, NUREG/BR-0184 § 5.7 states that a 7% discount rate, and 3% discount rate sensitivity analysis, should be used.[194] This approach is also consistent with OMB guidance in Circular A-94.[195]

Further, Mr. Anderson testified that OMB recommends a 7% discount rate to reflect "the opportunity cost of private capital (pretax expected return on investment in lieu of undertaking the project)."[196] As Mr. Anderson testified, a 7% discount rate is appropriate for SAMDA implementation because SAMDAs are design alternatives "that would be purchased using private (the [A]pplicant's) capital construction funding."[197] He also testified that he did not object to the OMB guidance suggesting 3% as the societal rate of return for comparative purposes in a sensitivity analysis.[198]

Intervenors suggest the only correct discount rate is 3%. Intervenors' witness, Mr. Johnson, testified that a 3% discount rate is appropriate because OMB performs cost-effectiveness analysis using discount rates that are based upon Treasury Bills, which are in the 3% range.[199] Mr. Johnson also testified that, because Applicant is seeking a DOE loan guarantee to finance STP Units 3 and 4, a discount rate below normal interest rates for corporate borrowing is appropriate.[200]

In rebuttal, Mr. Anderson rejected Mr. Johnson's claim that a SAMDA analysis is a cost-effectiveness analysis, which would render a 3% discount rate erroneous. Mr. Anderson testified that because all of the costs and benefits are monetized in a SAMDA analysis, it is a true cost-benefit analysis — as opposed to a cost-effectiveness analysis, where some costs or benefits have not been monetized.[201] Mr. Zimmerly's and Mr. Pieniazek's testimony, for Applicant, supported this point, indicating that OMB defines "cost-effectiveness" as "[a] systematic quantitative method for comparing the costs of alternative means of achieving the same stream of benefits or a given objective."[202] Mr. Zimmerly and

[193] Emch/Rishel/Anderson Rebuttal Testimony at 4; Zimmerly/Pieniazek Direct Testimony at 11; Exh. NRC000010 (NUREG/BR-0058, Rev. 4, Analysis Guidelines of the U.S. Nuclear Regulatory Commission (Sept. 2004)) at 32.

[194] Zimmerly/Pieniazek Direct Testimony at 11; Exh. STP000016; Emch/Rishel/Anderson Rebuttal Testimony at 4-6; Exh. NRC00008B, at 5.21.

[195] Zimmerly/Pieniazek Direct Testimony at 11; Emch/Rishel/Anderson Rebuttal Testimony at 4-6; Exh. NRC00008B, at 5.21; Exh. STP000016, at 9.

[196] Emch/Rishel/Anderson Rebuttal Testimony at 5 (citing Exh. NRC000060, at 33).

[197] Emch/Rishel/Anderson Rebuttal Testimony at 5.

[198] *Id.* at 6.

[199] Johnson Direct Testimony at 18-19.

[200] *Id.* at 19.

[201] Emch/Rishel/Anderson Rebuttal Testimony at 6.

[202] Zimmerly/Pieniazek Rebuttal Testimony at 16 (citing Exh. STP000016, at 18).

Mr. Pieniazek testified that a SAMDA analysis does not meet this definition of "cost-effectiveness" because it does not compare alternatives against each other using the same stream of benefits; instead, it evaluates the costs and benefits of each SAMDA.[203]

Both Applicant and Staff witnesses presented testimony rebutting Mr. Johnson's statements that, because STP Units 3 and 4 may be funded via DOE loan guarantee, a 3% discount rate should be used. Applicant's witnesses, Mr. Zimmerly and Mr. Pieniazek, testified that the DOE loan guarantee for financing construction is not relevant to the discount rate for the SAMDA analysis.[204] According to Applicant's witnesses, the SAMDA analysis does not use the discount rate to calculate the cost of implementing SAMDAs (those costs are fixed by the TSD and escalated from 1991 dollars to current dollars).[205] Instead, the SAMDA analysis for STP Units 3 and 4 uses the discount rate to calculate the net present value of future replacement power costs.[206] As a result, Applicant's witnesses testified that the replacement power costs (and the discount rate for replacement power costs) are independent of the rate of the DOE loan guarantee for financing construction.[207] For Staff, Mr. Anderson testified that Mr. Johnson failed to explain why a federal loan guarantee for plant construction translates into a 3% rate for discounting replacement power costs.[208]

(ii) LEGAL ANALYSIS AND FINDINGS

The Board finds that Staff and Applicant have reasonably employed discount rates — using a long-term 7% discount rate and a 3% discount rate as part of a sensitivity analysis — in accordance with established guidance from OMB and the NRC. Discounting reflects the opportunity cost for using funds that could otherwise be invested elsewhere. Because Applicant would be paying for the SAMDA (private construction and implementation costs) to offset the discounted replacement power costs, we agree with Staff that a private rate of return is appropriate to reflect Applicant's lost opportunity cost. Moreover, Mr. Johnson's testimony that the SAMDA analysis should be considered a cost-effectiveness analysis rather than a cost-benefit analysis is not convincing. As Applicant's witnesses testified, and we conclude, a SAMDA analysis does not compare alternatives against each other using the same stream of benefits; instead, a SAMDA analysis evaluates the costs and benefits of each SAMDA individually.

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[203] *Id.* at 16.
[204] *Id.*
[205] *Id.*
[206] *Id.*
[207] *Id.*
[208] Emch/Rishel/Anderson Rebuttal Testimony at 6.

That is, all cost-beneficial SAMDAs would be implemented, not just the most cost-effective ones.

b. ERCOT Pricing Data

(i) RECITATION OF EVIDENCE

At its heart, the ER used methodology from NUREG/BR-0184 to calculate replacement power costs ($310,000 per day for a 910-MWe power plant in 1993 dollars).[209] The replacement power costs were then scaled by other factors to arrive at a total averted cost for the SAMDA cost-benefit comparison.[210]

Intervenors' witness, Mr. Johnson, testified that, rather than using the values in NUREG/BR-0184 to calculate replacement power costs, the ER should have used actual pricing data specific to the ERCOT region.[211] Mr. Johnson testified that NUREG/BR-0184 premises its estimates of replacement power costs for a regulated utility market, whereas the Texas market is deregulated.[212] Moreover, the ERCOT region, unlike any other, has limited interconnections to other power pools, thus sensitizing it to significant capacity outages and fixing the cost of replacement power to the cost of natural gas power, rather than the more commonly used standard of coal power.[213]

Rather than relying purely on the replacement power costs of NUREG/BR-0184, both Applicant and Staff witnesses reanalyzed replacement power costs using actual ERCOT prices.[214] Mr. Johnson testified that this reanalysis was insufficient because Applicant and Staff used 2009 ERCOT market prices, and instead should have used 2008 ERCOT market prices. According to Mr. Johnson, 2009 ERCOT market prices understate forward-looking natural gas prices because (1) 2009 market prices were the lowest since 2001, and (2) 2009 market prices reflected the recession conditions of the time.[215] In contrast, Mr. Johnson testified that 2008 ERCOT market prices are most appropriate because they approach the long-term forecasts of escalating natural gas prices for the life of the proposed units.[216]

Applicant's witness, Mr. Pieniazek, testified that he used ERCOT pricing data

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[209] Exh. STP000013, at 7.5S-6; *see also* Exh. NRC00008B, at 5.51.
[210] Exh. STP000013, at 7.5S-6.
[211] Johnson Direct Testimony at 7-8.
[212] *Id.*
[213] *Id.*
[214] Zimmerly/Pieniazek Direct Testimony at 32 (Pieniazek Testimony); Emch/Rishel/Anderson Direct Testimony at 44-45 (Anderson Testimony).
[215] Johnson Rebuttal Testimony at 9-10.
[216] *Id.* at 10-11.

from 2009 and 2010 to reanalyze the cost of replacement power.[217] Mr. Pieniazek testified that he chose data from these years as being representative of future power prices because — recognizing that ERCOT's energy prices have been closely correlated to the price of natural gas — recent developments in shale gas formations have pushed down forecasts for natural gas energy prices in the 2026 to 2035 time frame.[218] Mr. Pieniazek testified that ERCOT energy prices for 2009 and 2010 are representative of stable and relatively low energy prices in the foreseeable future, and that this is an outlook shared by the U.S. Energy Information Administration.[219]

Mr. Pieniazek testified that these ERCOT prices for 2009-2010 did not alter the ER's original SAMDA conclusion that the averted costs from implementing any SAMDA would be well below the cost of the SAMDA itself.[220] Moreover, Mr. Pieniazek, for Applicant, and Mr. Anderson, for Staff, testified that they also looked to 2008 ERCOT pricing data, for a bounding analysis. The average price of electricity in the ERCOT market in 2008 was approximately $80 per MWh, which is more than twice the price in 2009-2010.[221] As Mr. Pieniazek testified, the elevated 2008 energy prices were attributable to significant transmission congestion, and the inefficient way by which congestion was relieved in ERCOT's zonal market structure, coupled with relatively high natural gas prices.[222] However, Mr. Pieniazek testified that even after using the 2008 ERCOT data, a substantial margin remained between the averted costs from the SAMDAs and the cost of the SAMDAs.[223] Staff's witness, Mr. Anderson, agreed that even accounting for the anomalous 2008 ERCOT prices does not lead to a cost-beneficial SAMDA.[224]

(ii) LEGAL ANALYSIS AND FINDINGS

The Board finds that Applicant's initial use of NUREG/BR-0184 to calculate replacement power costs is not reasonable for the deregulated ERCOT market. However, the Board also finds that, as an alternative to the replacement power costs in NUREG/BR-0184, the 2009-2010 ERCOT market prices are reasonable for use in the SAMDA analysis. Fluctuation in the price of power is the norm. Although Intervenors showed that NUREG/BR-0184 costs may be inappropriate

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[217] Zimmerly/Pieniazek Direct Testimony at 33-34 (noting the prices were very similar).

[218] *Id.* at 34; Exh. STP000021 (U.S. Energy Information Administration, "Natural Gas Delivered: Electric Power: West South Central: Reference Case").

[219] Zimmerly/Pieniazek Direct Testimony at 34; Tr. at 1503-04.

[220] Zimmerly/Pieniazek Direct Testimony at 36.

[221] *Id.* at 34-35; Emch/Rishel/Anderson Direct Testimony at 46.

[222] Zimmerly/Pieniazek Direct Testimony at 37; Exh. STP000021.

[223] Zimmerly/Pieniazek Direct Testimony at 39; Emch/Rishel/Anderson Direct Testimony at 46.

[224] Emch/Rishel/Anderson Direct Testimony at 46.

in an unregulated market such as Texas, they offered inadequate support for using 2008 ERCOT prices as a reasonable basis for projecting future replacement power costs. Applicant's testimony was convincing that natural gas prices establish the price of replacement power and that those prices are likely to remain low and stable for the foreseeable near term. Accordingly, we find that ERCOT prices from 2009-2010 are reasonably representative of future replacement power prices in the relevant market, and that Applicant and Staff reasonably used 2009-2010 ERCOT prices in their respective SAMDA analyses. Further, since the testimony and evidence — and our decision — supporting ERCOT pricing data forms part of the record of this proceeding and supplements the respective analyses in the ER and FEIS, we conclude Applicant and Staff have carried their respective burdens to comply with NEPA.

c. *ERCOT Market Effects*

(i) RECITATION OF EVIDENCE

With Contention CL-2, Intervenors also challenge the ER's replacement power cost estimates for failing to consider the market effect of a severe accident, i.e., the alleged increase in ERCOT replacement power prices due to the unavailability of power from the four STP units. According to Intervenors' witness, Mr. Johnson, considering market effects would have a significant impact on the SAMDA analysis because outages at the four STP units would "fundamentally change the supply-demand relationship in the energy market."[225] Mr. Johnson testified that removing the STP units from ERCOT's generating profile would have a "domino impact" that would allow less efficient generators to sell into the market, thus raising power prices.[226] Mr. Johnson, however, did not offer any testimony or analysis quantifying the change in replacement power costs due to the alleged market effects. Mr. Johnson testified only that business considerations on behalf of new generators made the 1-year assumption to replace lost STP capacity "overly optimistic."[227]

Applicant and Staff witnesses testified regarding their qualitative and quantitative analyses of market effects. For Applicant, Mr. Pieniazek testified that loss of the STP units would not have a significant impact on replacement power costs in the ERCOT region.[228] According to him, market effects would be mitigated by buffering from reserve margin and stimulation of new generating sources.[229] Mr.

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[225] Johnson Direct Testimony at 7.

[226] *Id.* at 9.

[227] *Id.*

[228] Zimmerly/Pieniazek Direct Testimony at 42.

[229] *Id.*

Pieniazek also testified that the combined capacity of the four STP units (approximately 5324 MWe) would be less than the generation capacity represented by ERCOT's planning reserve margin for peak load conditions of 13.75%.[230] While conceding that the loss of STP power would diminish the available margin,[231] Mr. Pieniazek testified that ERCOT would quickly restore reserves.[232] He further testified that a multiyear outage at the STP site would stimulate new generation capacity.[233] Mr. Pieniazek testified that ERCOT has now indicated that 5505 MW of mothballed capacity will exist in 2016, which could be brought back into service in a matter of months and be used to offset some of the lost generation.[234] He also testified that new simple cycle or combined cycle generation could enter the market within a year or two to offset lost STP generation.[235]

Quantitatively, Applicant and Staff witnesses calculated market effects by using a dispatch model, created by Applicant, that determines the difference between the ERCOT prices with all four STP units operating and the ERCOT prices with all four STP units shut down.[236] One of Staff's witnesses, Mr. Anderson, responded to criticisms of the model previously raised by the Intervenors in response to Applicant's Motion for Summary Disposition by making adjustments that he considered appropriate.[237]

After running the dispatch model, Applicant' witness, Mr. Pieniazek, testified that loss of all four STP units would increase the load-weighted average annual market price in ERCOT by $1.80 per MWh, based on 2009 ERCOT pricing data.[238] Using the higher 2008 ERCOT pricing data and other more conservative assumptions, Mr. Pieniazek testified that the dispatch model predicted a price

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[230] *Id.* at 43; Tr. at 1474-75; *see also* Tr. at 1570 (Johnson Testimony).

[231] Mr. Pieniazek testified that during most of the year, ERCOT also operates well below the peak hour demand. Zimmerly/Pieniazek Direct Testimony at 43.

[232] Tr. at 1474-75.

[233] Zimmerly/Pieniazek Direct Testimony at 44.

[234] *Id.* (citing Exh. STP000007 (ERCOT, "Report on the Capacity, Demand, and Reserves in the ERCOT Region" (Dec. 2010)) at 7).

[235] *Id.* at 44.

[236] *Id.* at 45 (Pieniazek Testimony); Zimmerly/Pieniazek Rebuttal Testimony at 8-10 (Pieniazek Testimony); Emch/Rishel/Anderson Direct Testimony at 48-53 (Anderson Testimony); *see also* Tr. at 1484-86 (Pieniazek Testimony).

[237] Emch/Rishel/Anderson Direct Testimony at 48-54. Mr. Anderson made a minor adjustment of the nuclear capacity factor assumed in the Applicant's model (increasing 88.5% to 90.0%), which is consistent with recent operating experience at STP. However, according to Mr. Anderson, this adjustment had no meaningful effect on the prices estimated by the model. *Id.* at 50-51. Mr. Anderson also adjusted the model by scaling to 2008 ERCOT pricing and adopting Intervenors' preferred wind capacity factor of 9%. Mr. Anderson testified that these adjustments had no effect on the SAMDA conclusion. *Id.* at 51-52.

[238] Zimmerly/Pieniazek Direct Testimony at 48-50.

increase of $5.23 per MWh.[239] Nevertheless, according to Mr. Pieniazek, these changes are well within the normal range of ERCOT power prices, which typically fluctuate by up to $20 per MWh.[240] Integrating these replacement power price changes into the calculation for total averted cost, Mr. Pieniazek testified that, even considering market effects, the ER's conclusion remains unchanged, i.e., there are no cost-effective SAMDAs.[241] The testimony of Staff's witness, Mr. Anderson, agreed with this analysis.[242]

Intervenors' witness, Mr. Johnson, criticized the dispatch model in several respects.[243] First, Mr. Johnson testified that the "model's treatment of ancillary service capacity[244] appears simplistic."[245] Mr. Pieniazek disputed this in his testimony, claiming that the dispatch model properly accounts for ancillary service capacity by including it for the hourly loads evaluated in the model.[246] According to Mr. Pieniazek, including it for hourly loads conservatively inflates the price of power because ancillary service capacity is not typically relied on both for operating reserves and for hourly demand.[247]

Second, Mr. Johnson claimed that the model's "assumption that no market power [abuse] will affect power prices is unrealistic" because it assumes perfect competition.[248] Mr. Johnson testified that "under certain market conditions, the generator may realize that a bid substantially above marginal cost will be accepted."[249] Mr. Pieniazek testified that, while the model does assume perfect competition, consideration of market power abuse would have minimal effect because the model calculates the price change from market effects as a difference of cost between two scenarios (one with operation of STP units and one without operation of the STP units).[250] As Mr. Pieniazek testified, because the model calculates a differential cost, any assumptions regarding market power would

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[239] Zimmerly/Pieniazek Rebuttal Testimony at 8, 10.

[240] *See* Zimmerly/Pieniazek Direct Testimony at 35.

[241] Zimmerly/Pieniazek Direct Testimony at 51.

[242] Emch/Rishel/Anderson Direct Testimony at 52-53.

[243] In response to Mr. Johnson's criticisms, Mr. Anderson — while conceding that Mr. Johnson's concerns were not unreasonable — testified that the concerns "ultimately have little effect on replacement power costs." *Id.* at 49.

[244] Mr. Anderson and Mr. Pieniazek testified that ancillary services are those power sources used to ensure reliability of the electric system by protecting it from unforeseen events such as unplanned generator outages, load forecast error, and wind forecast error, through maintaining sufficient reserve capacity. *Id.* at 50; Zimmerly/Pieniazek Direct Testimony at 46.

[245] Johnson Direct Testimony at 23.

[246] Zimmerly/Pieniazek Direct Testimony at 46.

[247] *Id.* at 46-47.

[248] Johnson Direct Testimony at 23; Johnson Rebuttal Testimony at 14-15.

[249] Johnson Direct Testimony at 23.

[250] Zimmerly/Pieniazek Direct Testimony at 47-48.

affect both scenarios, and so the net effect on the differential cost would be minimal.[251] He further testified that "since the market opened to competition in 2002, there has never been a finding of market power abuse by any regulatory or enforcement agency in ERCOT."[252] Even then, Mr. Pieniazek testified that there is no practical method to estimate the impacts of market power abuse, since such abuse would occur as a result of intentional wrongdoing by a supplier and this cannot be predicted, much less quantitatively estimated.[253] Mr. Anderson, in turn, testified that no independent market abuse term would likely be needed for calculating replacement power because were there to be any market power abuse in the region, ERCOT pricing data would already reflect the abuse because the market has been deregulated since 2002.[254]

Finally, Mr. Johnson testified that Applicant's assumptions regarding wind capacity factor (24.5%) are too high and should be dropped (to 9%).[255] Reiterating his argument for market abuse, Mr. Pieniazek testified that because the model compares two scenarios that include the same wind capacity factors, any effect tends to be offset.[256] Nonetheless, Mr. Pieniazek testified that he reran the dispatch model with a wind capacity factor of zero, thus completely removing wind resources from the model and artificially increasing the marginal price of power.[257] With a wind factor of zero, Mr. Pieniazek testified that the market effects of an STP outage increased the price of power slightly, to $2.39 per MWh based on 2009 ERCOT prices.[258] Mr. Anderson supported that assessment, testifying that running the model with a wind capacity factor of 9%, as Mr. Johnson suggested, changed power prices by only 2.0%.[259]

(ii) LEGAL ANALYSIS AND FINDINGS

The Board finds that Applicant and Staff reasonably accounted for market effects through Applicant's dispatch model as calibrated to use 2009 ERCOT prices (and with the more conservative 2008 ERCOT prices). Applicant and Staff also reasonably accounted for both Intervenors' wind capacity concerns, by adopting Intervenors' suggested wind capacity factor, as well as Intervenors' ancillary service concerns, by showing how ancillary services are conservatively

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[251] *Id.*
[252] *Id.* at 48; Tr. 1522-23.
[253] Zimmerly/Pieniazek Direct Testimony at 48.
[254] Emch/Rishel/Anderson Direct Testimony at 50.
[255] Johnson Direct Testimony at 22-23.
[256] Zimmerly/Pieniazek Direct Testimony at 49.
[257] *Id.*
[258] Zimmerly/Pieniazek Rebuttal Testimony at 6-7.
[259] Emch/Rishel/Anderson Direct Testimony at 49-50.

built into the model. As for market power abuse, the Board agrees with Applicant and Staff that market power abuse need not be given additional consideration. With no evidence of actual abuse in the ERCOT region, it is not reasonable to speculate that power generators will deliberately violate utility regulations. Given our finding that there has been a reasonable accounting for market effects, we find that the values calculated by Applicant and Staff show that incorporating market effects into the analysis does not result in a cost-beneficial SAMDA. Further, since the testimony and evidence — and our decision — supporting the consideration of market effects form part of the environmental record of this proceeding and supplement the respective analyses in the ER and FEIS, we conclude Applicant and Staff have carried their respective burdens to comply with NEPA.

d. Consumer Impacts

(i) RECITATION OF EVIDENCE

Intervenors argued not only that the cost of replacement power affects Applicant by having to replace power that would have been provided by the STP units, but also that any concomitant "higher power costs [would be] imposed on all consumers" in the ERCOT region.[260] According to Intervenors' witness, Mr. Johnson, this impact "relates to higher costs imposed on the overall market because the STP outages fundamentally change the supply-demand relationship in the energy market."[261] Mr. Johnson, however, did not provide an estimate of this impact.

Witnesses for both Applicant and Staff, Mr. Zimmerly and Mr. Anderson, respectively, testified that the impact on consumers of higher power prices after a severe accident at STP Units 3 or 4 should not be included in the SAMDA evaluation of replacement power costs.[262] For Applicant, Mr. Zimmerly testified that the impact on consumers due to an increase in ERCOT electricity prices does not affect the cost of replacement power.[263] According to Mr. Zimmerly, in the context of a SAMDA analysis, replacement power costs are those costs that the owner of the STP units would pay to ensure power is provided to the ERCOT region. Replacement power costs do not include costs that would be borne by consumers.[264] At the hearing, Mr. Johnson conceded that the impacts to which he was referring would not be borne by the owners of the STP units.[265]

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[260] Johnson Direct Testimony at 6-7.
[261] *Id.*
[262] Tr. at 1490-91 (Zimmerly Testimony); Tr. at 1623 (Anderson Testimony).
[263] Tr. at 1490.
[264] Tr. at 1490-91.
[265] Tr. at 1563.

Regardless of whether consumer impacts should be considered a replacement power cost, Applicant and Staff calculated the impacts and included them in their respective SAMDA analyses. To do so, Applicant and Staff witnesses, Mr. Pieniazek and Mr. Anderson, respectively, testified that they used the incremental market cost of energy from losing the four STP units (the market effect price increases, calculated *infra* pp. 851-53) and multiplied that price increase by the total energy generation in the ERCOT region.[266] Both Mr. Pieniazek and Mr. Anderson testified that even after integrating these costs into the total averted cost for implementing SAMDAs, the SAMDA analysis results remained unchanged; i.e., there are no cost-beneficial SAMDAs.[267]

(ii) LEGAL ANALYSIS AND FINDINGS

As a threshold matter, the Board concludes that consumer financial impacts are not replacement power costs for SAMDA analyses, and accordingly cannot be considered as part of Contention CL-2. In the ER's SAMDA analysis, and carried forward in Applicant's and Staff's adjustments, replacement power costs are onsite costs that would be paid by the owner of the STP site to compensate for the outage from a severe accident. By considering this cost, among others, a decision can be made about whether the SAMDA is cost-beneficial. It is this cost that Intervenors challenge with CL-2. Moreover, Intervenors' witness, Mr. Johnson, conceded that consumer impacts would not be borne by the owner of the STP site. Therefore, while consumer financial impacts could potentially be a relevant offsite cost, it is assuredly not a cost associated with replacement power costs for SAMDA analyses, and so there is no need to make such calculations.

Even so, the Board finds that Staff and Applicant still conservatively accounted for this extraneous cost by using the dispatch model developed to assess market effects. The Board also finds that the values calculated by Applicant and Staff show that incorporating consumer impacts into the analysis does not result in a cost-beneficial SAMDA.

e. ERCOT Price Spikes

(i) RECITATION OF EVIDENCE

Intervenors also argue that the ER's SAMDA evaluation is inadequate because it fails to account for spikes in ERCOT prices that may occur as a result of an

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[266] Zimmerly/Pieniazek Direct Testimony at 52; Emch/Rishel/Anderson Direct Testimony at 53-54; *see also* Tr. at 1492 (Pieniazek Testimony).

[267] Zimmerly/Pieniazek Direct Testimony at 53; Emch/Rishel/Anderson Direct Testimony at 53-54.

outage of the four STP units.[268] Although Intervenors' witness, Mr. Johnson, did not quantify the magnitude or frequency of such price spikes, he testified that price spikes in 2008 increased the average annual price of power in the ERCOT region by 20%.[269] According to Mr. Johnson, an outage of the four STP units would likely lead to "severe price spikes" at least in the immediate Houston/South Texas region because the loss of all four STP units simultaneously would represent 43% of total baseload capacity and 11% of installed capacity in the area.[270] Mr. Johnson also testified that as time elapsed after the start of the outage the severity of price spikes would diminish, but the "time frame of this adjustment is difficult to forecast."[271]

According to Applicant's witness, Mr. Pieniazek, ERCOT defines price spikes as the price of energy exceeding a specific threshold tied to the price of natural gas.[272] Mr. Pieniazek testified that price spikes occur with some regularity in the ERCOT region, but last only briefly.[273] The short duration, according to Mr. Pieniazek, is due to ERCOT carrying responsive reserves, regulation reserves, and nonspin reserves, all three of which are carried 24 hours a day to handle contingencies.[274] Additionally, Mr. Pieniazek testified that many of the historical price spikes were due to inefficient zonal management techniques rather than to outages of generation stations. Moreover, Mr. Pieniazek testified zonal management techniques ceased as a grid management method beginning December 1, 2010, when ERCOT implemented a nodal market design.[275] According to Mr. Pieniazek, a nodal market design provides improved dispatch efficiencies and unit-specific management of transmission congestion, a significant improvement over the pre-December 2010 zonal market design.[276]

Mr. Pieniazek testified that price spikes have impacted average power prices, the effect of which the Independent Market Monitor has estimated for ERCOT to be between 10% and 20% of average price from 2006 through 2009.[277] Mr.

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[268] Johnson Direct Testimony at 10-11.

[269] *Id.* at 11.

[270] *Id.* at 10.

[271] *Id.* at 11.

[272] Zimmerly/Pieniazek Direct Testimony at 53 (citing Exh. STP000020 (Potomac Economics, Ltd., "2009 State of the Market Report for the ERCOT Wholesale Electricity Markets," at i-v, 6-8 (July 2010)) at 6-7); Tr. at 1492-93.

[273] Zimmerly/Pieniazek Direct Testimony at 53-54.

[274] *Id.* at 54.

[275] *Id.* at 55-56; Tr. at 1500.

[276] Zimmerly/Pieniazek Direct Testimony at 55-56; Tr. at 1500-01.

[277] Zimmerly/Pieniazek Direct Testimony at 54 (citing Exh. STP000020, at 7).

Pieniazek testified, therefore, that price spikes are already accounted for by ERCOT's average prices.[278] Mr. Anderson, for Staff, concurred.[279]

Both Applicant and Staff offered witnesses who testified about how they adjusted their analyses to consider price spikes due to an STP outage. Both Mr. Pieniazek for Applicant and Mr. Anderson for Staff testified that even were the conservative 2008 ERCOT annual prices to be further increased by 20% to account for additional price spikes for a year — which Mr. Johnson deemed acceptable[280] — and after accounting for the additional ERCOT market effects and impacts to consumers discussed above, there still is no SAMDA that is cost-beneficial.[281]

(ii) LEGAL ANALYSIS AND FINDINGS

The Board finds that Applicant and Staff have reasonably accounted for price spikes associated with an STP outage by adding an additional 20% impact on top of conservative ERCOT prices that already account for price spikes. All parties agree that this approach is reasonable. The Board also finds that the values calculated by Applicant and Staff show that incorporating price spikes into the analysis does not result in a cost-beneficial SAMDA. Further, since the testimony and evidence — and our decision — supporting the analysis of price spikes forms part of the record of this proceeding and supplements the respective analyses in the ER and FEIS, we conclude Applicant and Staff have carried their respective burdens to comply with NEPA.

f. Loss of Grid

(i) RECITATION OF EVIDENCE

For Intervenors, Mr. Johnson testified that the simultaneous loss of four STP units "could increase the likelihood of outages on the ERCOT grid which [would] result in load shedding, or even uncontrolled blackouts."[282] Although Mr. Johnson did not quantify the cost of grid outages associated with STP unit outages in the ERCOT region, he did estimate that they would "produce severe economic damage."[283] Mr. Johnson testified that for industrial and commercial customers, the cost of an outage would be significant, perhaps even as high as $500,000 to

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[278] Zimmerly/Pieniazek Direct Testimony at 54.
[279] Emch/Rishel/Anderson Direct Testimony at 54.
[280] Tr. at 1562 (Johnson Testimony).
[281] Zimmerly/Pieniazek Direct Testimony at 56; Emch/Rishel/Anderson Direct Testimony at 55-56.
[282] Johnson Direct Testimony at 11.
[283] *Id.* at 11-12.

$1 million per customer for an hour of outage.[284] And for society overall, Mr. Johnson testified that the California energy crisis of 2000/2001 caused about $45 billion in economic damage and the Northeast blackout of 2003 caused about $10 billion in economic damage.[285] According to Mr. Johnson, "[t]hese events may represent close to worst case examples, but they illustrate that grid outage costs can produce severe economic damages beyond replacement power costs."[286]

For Applicant, Mr. Pieniazek testified that an outage of the ERCOT grid is extremely unlikely because of protective measures established by ERCOT, the Texas Reliability Entity, and the North American Electric Reliability Corporation (NERC).[287] Mr. Pieniazek further testified that there has never been a loss of the entire ERCOT grid due to any event.[288] Mr. Pieniazek described the measures ERCOT could take to ensure that no grid outage would occur.[289] As an example of the resiliency of the system, Mr. Pieniazek testified that there was no grid outage in conjunction with a severe weather event in February 2011 that disabled 7000 MW of generating capacity, an amount exceeding the total capacity of the STP units.[290]

According to Mr. Pieniazek, Mr. Johnson's grid outage scenario is remote and speculative because it is reasonable to assume that the probability of a severe accident leading to a grid outage is far less than 10%, and combining this probability with the ABWR Core Damage Frequency produces a combined probability far less than 10^{-8} per year.[291] In his testimony, Mr. Anderson, a Staff witness, echoed Mr. Pieniazek's statements on the probability of a grid outage.[292] Mr. Anderson testified that "[e]vents with such low probabilities of occurrence would be remote by any measure."[293] For these reasons, Mr. Anderson testified in support of Mr. Pieniazek's assessment that the grid outage scenario postulated by Mr. Johnson was remote and speculative.[294]

Nonetheless, Mr. Pieniazek calculated grid outage impacts that assumed a $45 billion cost, even though he testified that at most $5 billion of the societal impact was due to the blackouts.[295] By using the conservative 2008 ERCOT pricing

[284] *Id.* at 12.
[285] *Id.*
[286] *Id.*
[287] Zimmerly/Pieniazek Direct Testimony at 57.
[288] *Id.*
[289] *Id.* at 57-58.
[290] *Id.*
[291] *Id.* at 60.
[292] Emch/Rishel/Anderson Direct Testimony at 57.
[293] *Id.* at 58.
[294] *Id.*
[295] Zimmerly/Pieniazek Direct Testimony at 61.

data, and by accounting for the consumer impacts due to market effects and increases in price spikes, the total monetized impact still shows that no SAMDA is cost-beneficial.[296] Mr. Anderson testified that he came to the same conclusion, except that he used the $10 billion cost for the Northeast blackout.[297]

(ii) LEGAL ANALYSIS AND FINDINGS

As with Intervenors' arguments for considering the financial impact on individual customers, the Board concludes that societal financial impacts are not relevant to assessing replacement power costs for the instant SAMDA analyses, and accordingly cannot be considered as part of Contention CL-2. As Intervenors challenge it, replacement power costs are onsite costs that would be paid by the owner of the STP site to compensate for the outage from a severe accident. By contrast, Mr. Johnson points to widespread societal costs when referring to the impact of a grid outage. Therefore, while grid outage impacts could potentially be a relevant offsite cost, it is assuredly not a cost associated with replacement power costs for SAMDA analyses, and so there is no need to make such calculations.

Moreover, the Board finds that given the low probability of a severe accident, multiplied by the low probability that the STP shutdown would result in a loss of the grid, loss of the grid is a remote and speculative event. Consideration of such "remote and speculative" impacts is not required by NEPA.[298] The Commission previously upheld a licensing board determination that an accident sequence with a probability conservatively estimated at 2.0×10^{-7} per reactor year was remote and speculative for the purposes of NEPA.[299] Certainly, a cumulative grid outage probability of less than 10^{-8} per reactor-year is less than the accident probability that the Commission considered to be remote and speculative.

Even if a grid outage had to be considered, the Board finds that Applicant and Staff reasonably assessed the impact of a grid outage by assuming a conservative probability of occurrence and large impact that even Mr. Johnson concedes are close to being worst-case examples. Doing so, the Board finds that Staff and Applicant reasonably demonstrated that the total maximum averted costs remain less than the value of the lowest-cost SAMDA, i.e., there is no cost-beneficial SAMDA.

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[296] *Id.* at 62-63.

[297] Emch/Rishel/Anderson Direct Testimony at 58-59.

[298] *Vermont Yankee,* ALAB-919, 30 NRC at 44; *Limerick Ecology Action, Inc. v. NRC,* 869 F.2d 719, 739 (3d Cir. 1989) ("It is undisputed that NEPA does not require consideration of remote and speculative risks").

[299] *Carolina Power & Light Co.* (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 387-88 (2001).

D. Findings of Fact and Conclusions of Law

The Board has considered the testimony and evidence presented by the parties on Contention CL-2. Based upon a review of the entire record in this proceeding and the proposed findings of fact and conclusions of law submitted by the parties, and based upon the findings of fact set forth above, which are supported by reliable, probative, and substantial evidence in the record, the Board has decided all matters in controversy concerning this contention and makes the following findings of fact and conclusions of law. Applicant and Staff have met their respective burdens of showing that the STP FEIS and ER, as supplemented by the record for this hearing, comply with the requirements of NEPA and 10 C.F.R. Part 51. The evidence confirms the claims of Applicant and Staff in those documents that there are no cost-beneficial SAMDAs. As explained above, we find that Applicant and Staff have reasonably accounted for the economic factors raised by Intervenors in Contention CL-2. By addressing those factors, and even adopting Intervenors' own assumptions, Applicant and Staff have shown that no cost-beneficial SAMDAs exist for the STP COLA. Contention CL-2 is therefore resolved in favor of Applicant and Staff.

Pursuant to 10 C.F.R. § 2.1210, it is, this 29th day of December 2011, ORDERED that:

A. Intervenors' Contention CL-2 is resolved on the merits in favor of Applicant and Staff.

B. In accordance with 10 C.F.R. § 2.1210, this Partial Initial Decision will constitute a final decision of the Commission forty (40) days from the date of issuance (or the first agency business day following that date if it is a Saturday, Sunday, or federal holiday, *see* 10 C.F.R. § 2.306(a)), i.e., on February 7, 2012, unless a petition for review is filed in accordance with 10 C.F.R. § 2.1212, or the Commission directs otherwise. Any party wishing to file a petition for review on the grounds specified in 10 C.F.R. § 2.341(b)(4) must do so within fifteen (15) days after service of this Partial Initial Decision. The filing of a petition for review is mandatory for a party to have exhausted its administrative remedies before seeking judicial review. Within ten (10) days after service of a petition for review, parties to the proceeding may file an answer supporting or opposing

Commission review. Any petition for review and any answer shall conform to the requirements of 10 C.F.R. § 2.341(b)(2)-(3).

THE ATOMIC SAFETY AND
LICENSING BOARD

Michael M. Gibson, Chairman
ADMINISTRATIVE JUDGE

Gary S. Arnold
ADMINISTRATIVE JUDGE

Randall J. Charbeneau
ADMINISTRATIVE JUDGE

Rockville, Maryland
December 29, 2011

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 No. 52-012-COL
52-013-COL
(ASLBP No. 09-885-08-COL-BD01)

NUCLEAR INNOVATION NORTH AMERICA LLC
(South Texas Project, Units 3 and 4)

December 29, 2011

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY, NEW)

New contentions may be admitted as long as they (1) meet the timely contention criteria in 10 C.F.R. § 2.309(f)(2) or the nontimely contention criteria in 10 C.F.R. § 2.309(c)(1), and (2) fulfill the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1).

NATIONAL ENVIRONMENTAL POLICY ACT

RULES OF PRACTICE: CONTENTIONS (NEW)

A timely new contention challenging the sufficiency of Staff's National Environmental Policy Act (NEPA) documents may be filed where data or conclusions in these documents "differ significantly" from data or conclusions in previous versions of these documents or in the applicant's environmental report. Alternatively, a party may seek leave of the Board to file a new contention that challenges

the sufficiency of Staff's NEPA documents where: (i) the information upon which the new contention is based was not previously available; (ii) the information upon which the new contention is based is materially different than information previously available; and (iii) the new contention has been submitted in a timely fashion based on the availability of the subsequent information.

NATIONAL ENVIRONMENTAL POLICY ACT: ENVIRONMENTAL IMPACT STATEMENT, HARD LOOK

NEPA imposes procedural obligations on federal agencies proposing to take "actions significantly affecting the quality of the human environment." This procedural obligation is carried out through an agency's issuance of an environmental impact statement (EIS) documenting the agency's "hard look" at the potential environmental impacts of the proposed action and reasonable alternatives to the proposed action. Although the EIS's hard look must examine "reasonably foreseeable" environmental impacts emanating from the proposed action, the EIS is subject to a rule of reason that grants the agency a degree of deference exempting it from examining impacts that it in good faith deems to be "remote and speculative" or "inconsequentially small."

COMBINED LICENSES

NATIONAL ENVIRONMENTAL POLICY ACT: SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

The NRC's review of a COL application is the type of proposed action obliging the Staff to prepare an EIS or a supplement thereto. Before taking the proposed action, the Staff must issue a supplemental EIS where there are substantial changes in the proposed action that are relevant to environmental concerns or there are new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. Only where new information presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned is supplementation of an EIS required.

COMBINED LICENSES

NATIONAL ENVIRONMENTAL POLICY ACT: SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

Unless and until it is reasonably clear that the NRC's Near-Term Task Force on Fukushima's recommendations will result in new safety or design basis

prerequisites for granting a combined license, it is not evident that those recommendations could have any material impact on the conclusions made by Staff in an already-issued FEIS, or that they present a seriously different picture of the already-analyzed impacts of the proposed action.

MEMORANDUM AND ORDER
(Ruling on Admissibility of Intervenors' New Contention Regarding Fukushima Task Force Report)

This proceeding concerns the application of Nuclear Innovation North America LLC (Applicant) for combined licenses (COLs) under 10 C.F.R. Part 52 that would permit the construction and operation of two new nuclear reactor units — South Texas Project (STP) Units 3 and 4, employing the Advanced Boiling Water Reactor certified design — on the existing South Texas site, located near Bay City, Texas.[1] The South Texas site currently houses two reactors, STP Units 1 and 2.

On March 11, 2011, an earthquake and subsequent tsunami struck the northeast coast of Japan, including the area around the city of Fukushima. These events contributed to the crippling of four nuclear power reactors at Tokyo Electric Power Company's Fukushima Dai-ichi Nuclear Power Plant.[2] Intervenors (the Sustainable Energy and Economic Development Coalition, the South Texas Association for Responsible Energy, and Public Citizen) have moved for leave to file a new contention alleging that the Final Environmental Impact Statement (FEIS) for STP Units 3 and 4 is inadequate in light of the NRC's "Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident" (Task Force Report):

> The EIS for STP 3 & 4 fails to satisfy the requirements of NEPA [the National Environmental Policy Act of 1969] because it does not address the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report. As required by 10 C.F.R. § 51.92(a)(2) and 40 C.F.R. § 1502.9(c), these implications must now be addressed in a supplemental Draft EIS.[3]

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[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] *See* U.S. Nuclear Regulatory Commission, "Recommendations for Enhancing Reactor Safety in the 21st Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident" at 7-14 (July 12, 2011) (ADAMS Accession No. ML111861807) (Task Force Report).

[3] Contention Regarding NEPA Requirement to Address Safety and Environmental Implications of the Fukushima Task Force Report (Aug. 11, 2011) at 4 (New Contention).

For the reasons stated below, we conclude that Intervenors' Fukushima Contention is inadmissible and deny Intervenors' motion.

I. BACKGROUND

A. Procedural History

On August 27, 2009, we granted Intervenors' hearing request and petition to intervene.[4] Intervenors moved for leave to file the Fukushima Contention on August 11, 2011.[5] Applicant and Staff both oppose admission of the Fukushima Contention.[6] Intervenors filed a reply on September 13, 2011.[7] We held oral argument on the admissibility of the Fukushima Contention on October 31, 2011.[8]

B. The Near-Term Task Force Report and CLI-11-5

Following the events at the Fukushima Dai-ichi Nuclear Power Plant, the Chairman of the NRC directed the NRC Executive Director for Operations (EDO) to "establish a senior level agency task force to conduct a methodical and systematic review of [the agency's] processes and regulations to determine whether the agency should make additional improvements to [its] regulatory

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[4] *South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), LBP-09-21, 70 NRC 581, 588, 637-38 (2009).

[5] Motion to Admit New Contention Regarding the Safety and Environmental Implications of the Nuclear Regulatory Commission Task Force Report on the Fukushima Dai-ichi Accident (Aug. 11, 2011) (Intervenors' Motion); *see also* New Contention. Included with Intervenors' motion was a petition that sought suspension of this proceeding and rescission of regulations "that make generic conclusions about the environmental impacts of severe reactor and spent fuel pool accidents and that preclude consideration of those issues in individual licensing proceedings." Rulemaking Petition to Rescind Prohibition Against Consideration of Environmental Impacts of Severe Reactor and Spent Fuel Pool Accidents and Request to Suspend Licensing Decision (Aug. 11, 2011) at 1. The Commission has denied both requests. *See Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 175-76 (2011); *see also Nuclear Innovation North America LLC* (South Texas Project, Units 3 and 4), CLI-11-6, 74 NRC 203, 210-11 (2011). Accordingly, that petition is moot and need not be considered further by this Board.

[6] Nuclear Innovation North America LLC's Answer in Opposition to Proposed Contention Regarding Fukushima Task Force Report (Sept. 6, 2011) (Applicant Answer); NRC Staff Answer to Intervenors' Motion to Admit New Contention Regarding the Safety and Environmental Implications of the NRC Task Force Report on the Fukushima Dai-ichi Accident (Sept. 6, 2011) (Staff Answer).

[7] Intervenors' Reply to Oppositions to Admission of New Contention (Sept. 13, 2011) & Attach., Reply Memorandum Regarding Timeliness and Admissibility of New Contentions Seeking Consideration of Environmental Implications of Fukushima Task Force Report in Individual Reactor Licensing Proceedings (Sept. 13, 2011).

[8] *See* Tr. at 1868-1908.

system and make recommendations to the Commission for its policy direction."[9] On July 12, 2011, the Near-Term Task Force published its recommendations.[10]

On September 9, 2011, the Commission denied requests by intervenors in this and other reactor licensing proceedings to suspend these proceedings in light of the events at Fukushima.[11]

II. LEGAL STANDARDS

A. Contention Admissibility

New contentions may be admitted as long as they (1) meet the timely contention criteria in 10 C.F.R. § 2.309(f)(2) or the nontimely contention criteria in 10 C.F.R. § 2.309(c)(1), and (2) fulfill the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). We have reviewed the standards for new contentions on multiple occasions in this proceeding[12] and thus we provide only a brief summary of those precepts here.

1. Timely New Contentions Under 10 C.F.R. § 2.309(f)(2)

A timely new contention challenging the sufficiency of Staff's NEPA documents may be filed where data or conclusions in these documents "differ significantly" from data or conclusions in previous versions of these documents or in the applicant's environmental report.[13] Alternatively, a party may seek leave of the Board to file a new contention that challenges the sufficiency of Staff's NEPA documents where:

> (i) The information upon which the . . . new contention is based was not previously available;
>
> (ii) The information upon which the . . . new contention is based is materially different than information previously available; and
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> (iii) The . . . new contention has been submitted in a timely fashion based on the availability of the subsequent information.[14]

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[9] NRC Actions Following the Events in Japan, COMGBJ-11-0002, at 1 (Mar. 21, 2011) (ADAMS Accession No. ML110800456).

[10] *See, e.g.,* Task Force Report at 69-76.

[11] *Callaway,* CLI-11-5, 74 NRC at 175-76.

[12] *See, e.g., Nuclear Innovation North America LLC* (South Texas Project, Units 3 and 4), LBP-11-7, 73 NRC 254, 277-80 (2011); *South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), LBP-10-14, 72 NRC 101, 107-09 (2010).

[13] 10 C.F.R. § 2.309(f)(2).

[14] *Id.* § 2.309(f)(2)(i)-(iii).

Our Initial Scheduling Order in this proceeding specifies that a new contention is deemed "submitted in a timely fashion" pursuant to 10 C.F.R. § 2.309(f)(2)(iii) "if it is filed . . . within thirty (30) days of the date when the new and material information on which it is based first becomes available."[15]

2. *Contention Admissibility Under 10 C.F.R. § 2.309(f)(1)*

In addition to meeting the requirements for timely new contentions pursuant to 10 C.F.R. § 2.309(f)(2)(i)-(iii) or nontimely contentions pursuant to 10 C.F.R. § 2.309(c), a new contention must also satisfy the general contention admissibility requirements of 10 C.F.R. § 2.309(f)(1). To be admissible, a contention must:

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;
>
> (ii) Provide a brief explanation of the basis for the contention;
>
> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
>
> (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
>
> (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue;
>
> (vi) . . . [P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.[16]

B. NEPA

As we have explained in prior orders in this proceeding,[17] NEPA imposes procedural obligations on federal agencies proposing to take "actions significantly

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[15] Licensing Board Initial Scheduling Order (Oct. 20, 2009) at 8 (unpublished). Even when a proposed new contention is not found timely, it may be admitted if it meets a balancing of the eight nontimely filing factors of 10 C.F.R. § 2.309(c). *See* LBP-10-14, 71 NRC at 108 & nn.27-28.

[16] 10 C.F.R. § 2.309(f)(1)(i)-(vi).

[17] *See, e.g.,* LBP-11-7, 73 NRC at 281; LBP-10-14, 72 NRC at 109-10.

affecting the quality of the human environment."[18] This procedural obligation is carried out through an agency's issuance of an environmental impact statement (EIS) documenting the agency's "hard look" at the potential environmental impacts of the proposed action and reasonable alternatives to the proposed action.[19] Although the EIS's hard look must examine "reasonably foreseeable" environmental impacts emanating from the proposed action,[20] the EIS is subject to a rule of reason that grants the agency a degree of deference exempting it from examining impacts that it in good faith deems to be "remote and speculative" or "inconsequentially small."[21]

The NRC's review of a COL application is the type of proposed action obliging the Staff to prepare an EIS or a supplement thereto.[22] Before taking the proposed action, the Staff must issue a supplemental EIS where "[t]here are substantial changes in the proposed action that are relevant to environmental concerns" or "[t]here are new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."[23] Only where new information presents "a seriously different picture of the environmental impact of the proposed project from what was previously envisioned," is supplementation of an EIS required.[24]

III. ANALYSIS

In their Fukushima Contention, Intervenors argue that Staff's FEIS is inadequate under NEPA for "not address[ing] the new and significant environmental implications of the findings and recommendations raised by the NRC's Fukushima Task Force Report."[25] Intervenors state that the Task Force Report is the type of event necessitating a supplemental FEIS. They describe it as "new and significant"

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[18] 42 U.S.C. § 4332(2)(C); *see Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 350-51 (1989).

[19] 42 U.S.C. § 4332; *Louisiana Energy Services, L.P.* (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998).

[20] *Progress Energy Florida, Inc.* (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 46 (2010) (referencing 42 U.S.C. § 4332; *Sierra Club v. Marsh,* 976 F.2d 763 (1st Cir. 1992)).

[21] *Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-09-7, 69 NRC 613, 631-32 (2009) (citations omitted). Courts presume that a federal agency is acting in good faith. *See Comcast Corp. v. Federal Communications Commission,* 526 F.3d 763, 769 n.2 (D.C. Cir. 2008).

[22] 10 C.F.R. § 51.20(b)(2).

[23] *Id.* § 51.92(a)(1)-(2).

[24] *Callaway,* CLI-11-5, 74 NRC at 167-68 (internal quotations and citations omitted) (referencing 10 C.F.R. § 51.72, the regulation outlining the conditions for supplementing a Draft EIS).

[25] New Contention at 4.

because it was published after the Fukushima event and because, "[f]or the first time since the Three Mile Island accident occurred in 1979, a highly respected group of scientists and engineers within the NRC Staff has fundamentally questioned the adequacy of the current level of safety provided by the NRC's program for nuclear reactor regulation."[26] Therefore, Intervenors reason, "the NRC must revisit any conclusions in the STP [Units 3 and 4] EIS based on the premise that compliance with NRC safety regulations is sufficient to ensure that environmental impacts of accidents are acceptable."[27]

Further, in light of the Task Force's recommendation to incorporate some severe accident mitigation measures into a plant's design basis, as well as its conclusion that certain "SAMAs [severe accident mitigation alternatives] . . . should be elected as a matter of course," Intervenors also assert that the cost-benefit analysis for SAMAs in the FEIS should be reexamined.[28] Supported by the declaration of their expert, Dr. Arjun Makhijani, Intervenors declare that, were the NRC to require implementation of some of these SAMAs, the cost would be so great that other alternatives to the proposed action and the no-action alternative "may be more attractive," thus altering the conclusions of the FEIS for STP Units 3 and 4.[29] Intervenors also argue that the FEIS must be supplemented because language in the Task Force Report suggests that seismic and flooding hazards, design alternatives to counter such hazards, and other plant components need to be reevaluated for the STP site.[30]

Applicant and Staff both argue that the Fukushima Contention is inadmissible.[31]

Although the Fukushima Contention challenges the FEIS — which is a NEPA document — the Fukushima Contention does not rest on any claims that data or conclusions in the FEIS "differ significantly" from previous NEPA documents issued for the instant proposed action.[32] Therefore, its timeliness must be evaluated under the three-part test of section 2.309(f)(2)(i)-(iii). Pursuant to section 2.309(f)(2)(i), Intervenors' Fukushima Contention is based on information that was previously unavailable before the issuance of the Task Force Report, principally the recommendations contained therein. Pursuant to section 2.309(f)(2)(ii),

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[26] *Id.* at 10-11.

[27] *Id.* at 11.

[28] *Id.* at 12-13. In a prior order, we have explained the role SAMA analyses play in NRC environmental reviews. *See* LBP-11-7, 73 NRC at 264-65.

[29] New Contention at 12.

[30] *See id.* at 13-15; Tr. at 1892-94.

[31] *See* Applicant Answer at 11-30; Staff Answer at 5-19.

[32] *See* Intervenors' Motion at 2-4; 10 C.F.R. § 2.309(f)(2) ("On issues arising under [NEPA], ... [t]he 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.").

the information in the Task Force Report is materially different from previously available information because there is no NRC document predating the Task Force Report that analyzes the impact of the Fukushima events on reactor operations in this country and that makes similar suggestions for future plant improvements. Further, because the Task Force Report was issued on July 12, 2011, and Intervenors' Fukushima Contention was filed within 30 days, on August 11, 2011, the contention was timely filed pursuant to section 2.309(f)(2)(iii) and our Initial Scheduling Order. Therefore, we agree with the Intervenors that the Fukushima Contention is timely pursuant to section 2.309(f)(2).[33]

Although timely, to be admitted the contention also must meet the remaining criteria under section 2.309(f)(1). A number of boards in other reactor licensing proceedings have dismissed substantially identical contentions that were also based on the Task Force Report.[34] We agree with their reasoning that, at this time, it would be premature to adjudicate the environmental impacts of any potential requirements on reactor licensees that result from the recommendations in the Task Force Report. Unless and until it is reasonably clear that the Task Force's recommendations will result in new safety or design basis prerequisites for granting a COL for STP Units 3 and 4, it is not evident that those recommendations could have any material impact on the conclusions made by Staff in its FEIS for STP Units 3 and 4, or that they "present a seriously different picture" of the already-analyzed impacts of the proposed action.

At oral argument, however, counsel for Intervenors argued that disposition of this contention in this proceeding should diverge from the course taken by those other licensing boards because of an October 18, 2011 Staff Requirements Memorandum (SRM) from the Commission to the NRC EDO.[35] Counsel explained that this SRM is "now the basis for Agency action in terms of adopting [the Task Force's] recommendations."[36]

While we recognize that this issue was raised neither in the original contention nor in a separate pleading,[37] it was addressed by each party and the Board at oral argument and we have considered the SRM in weighing the admissibility

[33] *See* Intervenors' Motion at 2-4. Accordingly, we need not evaluate it as a nontimely filing pursuant to Section 2.309(c).

[34] *See, e.g., Tennessee Valley Authority* (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-11-37, 74 NRC 774 (2011); *FirstEnergy Nuclear Operating Co.* (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685 (2011); *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675 (2011); *Pacific Gas and Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654 (2011); *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 604 (2011); *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591 (2011).

[35] Tr. at 1871-74.

[36] *Id.* at 1872.

[37] *See id.* at 1876.

of the contention. However, we conclude that its existence does not alter our determination regarding the contention's admissibility. In the SRM, the Commission directed the EDO to complete and implement lessons learned from Fukushima in light of the Task Force Report. The SRM directed Staff to employ an array of tools, including orders and rulemakings.[38] Recently, the Commission approved certain proposals by Staff that were purportedly undertaken to comply with the SRM (although the Commission did not specify what new requirements it will adopt or when they will be implemented).[39] Although the SRM and the Commission's recent approval of the Staff actions to be taken certainly provide additional insight regarding the direction the Commission might ultimately take, we agree with the reasoning of another licensing board that "what changes, if any, actually result from the NRC process, cannot be predicted. Absent better knowledge of those regulatory changes, it is impossible to predict what costs, if any, such changes may impose on"[40] a particular reactor, such as STP Units 3 and 4, much less how such changes would materially affect the conclusions in the FEIS in this proceeding.

Because this proceeding is at the advanced stage where an FEIS has already issued,[41] we recognize that the time might never arise before a license is issued to Applicant when safety and design basis requirements are sufficiently defined to frame Intervenors' concerns as a litigable contention. But we share the confidence exhibited by another licensing board that in the future the Commission might provide the relevant guidance regarding the proper time frame for adjudicating a similar contention.[42] Most importantly, at this juncture, any impact that recommendations from the Task Force Report might have on the proposed action in this proceeding is necessarily "remote and speculative." Thus, Intervenors have not "provide[d] sufficient information to show that a genuine dispute exists . . .

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[38] Staff Requirements — SECY-11-0124 — Recommended Actions to Be Taken Without Delay from the Near-Term Task Force Report at 1 (Oct. 18, 2011), *available at* http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2011/2011-0124srm.pdf.

[39] Staff Requirements — SECY-11-0137 — Prioritization of Recommended Actions to Be Taken in Response to Fukushima Lessons Learned at 1-2 (Dec. 15 2011), *available at* http://www.nrc.gov/reading-rm/doc-collections/commission/srm/2011/2011-0137srm.pdf.

[40] *Diablo Canyon,* LBP-11-32, 74 NRC at 671.

[41] *See* Office of New Reactors, U.S. Nuclear Regulatory Commission, Environmental Impact Statement for Combined Licenses (COLs) for South Texas Project Electric Generating Station Units 3 and 4: Final Report, NUREG-1937 Vols. 1 & 2 (Feb. 2011) (ADAMS Accession Nos. ML11049A000, ML11049A001).

[42] *Seabrook,* LBP-11-28, 74 NRC at 610 & n.35 (citing *Callaway,* CLI-11-5, 74 NRC at 171 ("Although we do not establish a timetable for future adjudicatory pleadings today, we will monitor our ongoing adjudicatory proceedings and will reassess this determination if it becomes apparent that additional guidance would be appropriate.")).

on a material issue of law or fact” pursuant to 10 C.F.R. § 2.309(f)(1)(vi) and, consequently, the Fukushima Contention is inadmissible.[43]

IV. CONCLUSION

For the reasons stated above, we find Intervenors’ Fukushima Contention is inadmissible. Accordingly, we deny their motion for leave to admit the contention.

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
December 29, 2011

[43] *See Turkey Point,* LBP-11-33, 74 NRC at 683; *see also Vogtle,* LBP-09-7, 69 NRC at 631.

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although NRC rules require that motions be addressed to the presiding officer when a proceeding is pending, suspension motions are best addressed to the Commission; CLI-11-5, 74 NRC 158 (2011)
intervention petitioners may not challenge the adequacy of the safety evaluation report, but may file contentions challenging the combined license application based on new information in the SER; LBP-11-22, 74 NRC 273 n.72 (2011)

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AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 484 (2008)
suspension of licensing proceedings is a drastic action that is not warranted absent immediate threats to public health and safety or other compelling reason; CLI-11-5, 74 NRC 158 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 484-85 (2008)
petitions to suspend multiple license renewal proceedings in view of an Inspector General's report on the agency's license renewal process were considered pursuant to the Commission's inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 158 (2011)
the Commission may consider the rulemaking request of a nonparty as an exercise of its inherent supervisory powers authority over agency proceedings; CLI-11-5, 74 NRC 174 n.132 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-23, 68 NRC 461, 486 (2008)
intervenors' speculation that further review of certain issues might change some conclusions in the final safety evaluation report does not justify restarting the hearing process; LBP-11-20, 74 NRC 76 (2011); LBP-11-23, 74 NRC 295, 321 (2011); LBP-11-35, 74 NRC 718 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 668 (2008)
the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; LBP-11-20, 74 NRC 77 n.75 (2011); LBP-11-35, 74 NRC 743 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 668-69 (2008)
proponents of a motion to reopen bear a heavy burden; CLI-11-8, 74 NRC 221 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 670, 674 (2008)
a mere showing that changes to the severe accident mitigation alternatives analysis results are possible or likely or probable is not enough to reopen a record; LBP-11-35, 74 NRC 729 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 672-73 (2008)
the ability of a totally unfunded group to provide testimony from experts is not taken into account in ruling on motions to reopen; LBP-11-20, 74 NRC 94 n.15 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 674 (2008)
bare assertions are insufficient to show an exceptionally grave issue for reopening the record; CLI-11-8, 74 NRC 226 n.48 (2011); LBP-11-23, 74 NRC 313 n.136, 321 (2011)
where the record has been closed, NRC rules impose a deliberately heavy burden on an intervenor seeking to reopen the record to consider additional evidence, including evidence on a new contention; LBP-11-20, 74 NRC 77-78 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 675-76 (2008)
conclusory language is not sufficient to support an appeal; CLI-11-8, 74 NRC 225 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC 658, 677 (2008)
because it relates to Staff's position on the reviewability of the Board's decision, Staff's statement regarding its inclination not to revise the FSEIS is presented for the first time in Staff's answer; CLI-11-14, 74 NRC 808 (2011)
filings not otherwise authorized by NRC rules are allowed only where necessity or fairness dictates; CLI-11-14, 74 NRC 807 (2011)
replies may not contain new information that was not raised in either the petition or answers, but arguments that respond to the petition or answers are not precluded, whether they are offered in rebuttal or in support; CLI-11-14, 74 NRC 809 n.45 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 259-61 (2009)
NRC rules deliberately place a heavy burden on proponents of contentions, who must challenge aspects of license applications with specificity, backed up with substantive technical support, mere conclusions or speculation being insufficient; CLI-11-5, 74 NRC 169 (2011)

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 petitioner, NRC contention admissibility rules require petitioner (not the board) to supply all the elements for a valid intervention petition; LBP-11-20, 74 NRC 78 (2011); LBP-11-29, 74 NRC 618 (2011)

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AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260, 275-77 (2009)
absent error of law or abuse of discretion, the Commission defers to licensing board rulings on contention admissibility; CLI-11-9, 74 NRC 237 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260, 276 (2009)
intervenors must assert a sufficiently specific challenge that demonstrates that further inquiry is warranted; CLI-11-9, 74 NRC 247 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 260, 278 (2009)
at the contention admissibility stage, the burden is on intervenors to demonstrate a deficiency in the application; CLI-11-9, 74 NRC 243-44 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 261 (2009)
good cause for failure to file on time is the most important late-filing factors; LBP-11-32, 74 NRC 662 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 263 (2009)
the "reasonable assurance" standard for aging management programs does not require a 95% confidence level of compliance; LBP-11-18, 74 NRC 37 n.46 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 271-72 (2009)
there simply would be no end to NRC licensing proceedings if petitioners could ignore timeliness requirements and add new contentions at their convenience based on information that could have formed the basis for a timely contention at the outset of the proceeding; LBP-11-20, 74 NRC 85 n.109 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 273-74 (2009)
enhancement to a program does not constitute new information sufficient to support a new contention; LBP-11-20, 74 NRC 87 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 274 (2009)
a contention challenging an enhanced monitoring program adopted by applicant is inadmissible because intervenor had not challenged the original unenhanced monitoring program; LBP-11-20, 74 NRC 98 (2011)
as a matter of law and logic, if applicant's enhanced monitoring program is inadequate, then applicant's unenhanced monitoring program was a fortiori inadequate, and intervenor had a regulatory obligation to challenge it in its original petition to intervene; LBP-11-20, 74 NRC 87 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 286-87 (2009)
a heavier burden applies to motions to reopen than to proponents of contentions in ongoing proceedings; CLI-11-5, 74 NRC 169 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 287 (2009)
a mere showing that changes to the severe accident mitigation alternatives analysis results are possible or likely or probable is not enough to reopen an record; LBP-11-35, 74 NRC 729 (2011)
bare assertions are insufficient to show an exceptionally grave issue for reopening the record; LBP-11-23, 74 NRC 313 n.136, 321 (2011)
the burden of satisfying the reopening requirements is a heavy one, and proponents bear the burden of meeting all of the requirements; LBP-11-20, 74 NRC 81, 84 n.108 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-16, 63 NRC 737, 744 (2006)
the licensing board dismissed all pending contentions on mootness grounds due to new information, which ordinarily would terminate the proceeding, but the board permitted new contentions to be filed on the new information before terminating the proceeding; LBP-11-22, 74 NRC 285 (2011)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 244 (2006)
boards do not adjudicate disputed facts at the contention admission stage; LBP-11-21, 74 NRC 125 (2011)

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AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), LBP-06-22, 64 NRC 229, 246 (2006)

as a matter of law and logic, if applicant's enhanced monitoring program is inadequate, then applicant's unenhanced monitoring program was a fortiori inadequate, and intervenor had a regulatory obligation to challenge it in its original petition to intervene; LBP-11-20, 74 NRC 87 (2011)

Anderson v. Liberty Lobby, 477 U.S. 242, 247-52, 255 (1986)

if reasonable minds could differ as to the import of the evidence, summary disposition is not appropriate; LBP-11-20, 74 NRC 103-04 n.72 (2011)

Anderson v. Liberty Lobby, 477 U.S. 242, 250 (1986)

with regard to the first criterion for summary disposition, the correct inquiry is whether there are material factual issues that properly can be resolved only by a finder of fact because they may reasonably be resolved in favor of either party; LBP-11-31, 74 NRC 648 (2011)

Anderson v. Liberty Lobby, 477 U.S. 242, 255 (1986)

in deciding motions for summary disposition, all facts are to be construed in the light most favorable to the nonmoving party; LBP-11-31, 74 NRC 648 (2011)

Andrew Siemaszko, CLI-06-16, 63 NRC 708, 720-21 (2006)

boards must not redraft an inadmissible contention to cure deficiencies and thereby render it admissible; CLI-11-11, 74 NRC 437 (2011)

Animal Defense Council v. Hodel, 840 F.2d 1432, 1439 (9th Cir. 1988)

an environmental impact statement that contains an incomplete or misleading comparison of alternatives is deficient; LBP-11-21, 74 NRC 137 n.126 (2011)

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

boards must not redraft an inadmissible contention to cure deficiencies and thereby render it admissible; CLI-11-11, 74 NRC 437 (2011)

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 contention pleading requirements precludes admission of a contention; LBP-11-21, 74 NRC 125 (2011)

licensing boards are discouraged from adding material to bolster a petitioner's or party's arguments or pleadings; CLI-11-11, 74 NRC 447 n.113, 451 (2011)

Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Units 1, 2, and 3), CLI-91-12, 34 NRC 149, 156 (1991)

at the contention admissibility stage, the burden is on intervenors to demonstrate a deficiency in the application; CLI-11-9, 74 NRC 243-44 (2011)

intervenors must assert a sufficiently specific challenge that demonstrates that further inquiry is warranted; CLI-11-9, 74 NRC 247 (2011)

Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97 (1983)

NEPA has a dual purpose of ensuring that federal officials fully take into account the environmental consequences of a federal action before reaching major decisions and informing the public, Congress, and other agencies of those consequences; LBP-11-35, 74 NRC 766 n.13 (2011)

Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 97-98 (1983)

NEPA requires agencies to take a hard look at environmental consequences prior to taking major actions; LBP-11-38, 74 NRC 830 n.86 (2011)

Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 100-01, 103 (1983)

NEPA does not mandate how an agency must fulfill its obligations under the statute; LBP-11-23, 74 NRC 331 (2011)

Baltimore Gas & Electric Co. v. Natural Resources Defense Council, Inc., 462 U.S. 87, 101 (1983)

NRC has discretion to resolve issues generically by rulemaking; CLI-11-11, 74 NRC 451 (2011)

Baltimore Gas & Electric Co. (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-25, 48 NRC 325, 349-50 (1998)

the process of revising an application after its initial submission and docketing is explained; LBP-11-22, 74 NRC 271 (2011)

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Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1213 (9th Cir. 1998)
merely offering general statements about possible effects and some risk does not constitute a hard look at environmental impacts absent a justification regarding why more definitive information could not be provided; LBP-11-26, 74 NRC 545 (2011); LBP-11-38, 74 NRC 830-31 (2011)
Bruesewitz v. Wyeth LLC, 131 S. Ct. 1068, 1076 (2011)
applying the rule of statutory construction that the mention of one thing implies the exclusion of another, the fact that the regulation sets forth three specific circumstances in which a board's jurisdiction ends implies that jurisdiction does not end in other circumstances not listed; LBP-11-22, 74 NRC 277 (2011)
Burke v. Kodak Retirement Income Plan, 336 F.3d 103, 107-08 (2d Cir. 2003)
a notice failing to contain a specific time limit for administrative review, as required by federal regulations, does not trigger a time bar; LBP-11-19, 74 NRC 63 n.9 (2011)
California Wilderness Coalition v. U.S. Department of Energy, 631 F.3d 1072, 1105-06 (9th Cir. 2011)
without substantive, comparative environmental impact information regarding other possible courses of action, the ability of an environmental impact statement to inform agency deliberation and facilitate public involvement would be greatly degraded; LBP-11-23, 74 NRC 331 (2011)
Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915 (2009)
NRC follows contemporaneous judicial concepts of standing, which call for showing of a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision, where the injury is to an interest arguably within the zone of interests protected by the governing statute; LBP-11-29, 74 NRC 616 (2011)
to show standing, a hearing request must state petitioner's name, address, and telephone number, nature of its right under the applicable statutes to be made a party, nature and extent of property, financial, or other interest in the proceeding, and possible effect of any decision or order that may be issued on its interest; LBP-11-29, 74 NRC 616 (2011)
Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915-16 (2009)
in most licensing proceedings, petitioners are presumed to have standing if they live or have frequent contacts within 50 miles of the facility that is the subject of the proceeding; LBP-11-29, 74 NRC 616 (2011)
Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915-16 & n.15 (2009)
in reactor license renewal proceedings, 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 facility; LBP-11-21, 74 NRC 122 (2011)
Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 920 (2009)
an entity is under foreign ownership, control, or domination whenever a foreign interest has the power, direct or indirect, whether or not exercised, to direct or decide matters affecting the management or operations of the applicant; LBP-11-25, 74 NRC 391 (2011)
there is no specific ownership percentage above which it would conclusively find that an applicant is per se controlled by foreign interests; LBP-11-25, 74 NRC 391 (2011)
Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 920-21 (2009)
foreign control must be interpreted in light of all the information that bears on who in the corporate structure exercises control over what issues and what rights may be associated with certain types of shares; LBP-11-25, 74 NRC 391 (2011)
Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 921 (2009)
a foreign control inquiry should be focused on safeguarding the national defense and security as well as five other factors; LBP-11-25, 74 NRC 391 (2011)
applicant's eligibility merely to apply for a combined license is material to a combined license proceeding; LBP-11-25, 74 NRC 395 (2011)

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-09-15, 70 NRC 198, 210 (2009)
contention dismissal based on mootness is a jurisdictional ruling, not a decision on the merits of the claim; LBP-11-22, 74 NRC 270 n.61 (2011)

Calvert Cliffs 3 Nuclear Project, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), LBP-10-24, 72 NRC 720, 729-30 (2010)
contentions may challenge the adequacy of the review contained in the Staff's NEPA documents; LBP-11-22, 74 NRC 273 n.72 (2011)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-00-11, 51 NRC 297, 299 (2000)
parties should not seek interlocutory review by invoking the grounds under which the Commission might exercise its supervisory authority; CLI-11-14, 74 NRC 813 (2011)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant), CLI-01-11, 53 NRC 370, 387-88 (2001)
an accident sequence with a probability conservatively estimated at 2.0×10^{-7} per reactor year is remote and speculative for the purposes of NEPA; LBP-11-38, 74 NRC 859 (2011)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Plant, Units 1-4), ALAB-526, 9 NRC 122, 123-24, 124 n.3 (1979)
after a board has authorized issuance of applicant's permits and the Commission has remanded a specific question to board, the board's jurisdiction is limited to what was remanded to it, and the board lacks jurisdiction over a newly filed intervention petition; LBP-11-20, 74 NRC 76 n.71 (2011)

Carolina Power & Light Co. (Shearon Harris Nuclear Power Station, Units 1; H.B. Robinson Plant, Unit 2), DD-06-1, 63 NRC 133, 140 (2006)
for contentions that fall within the facility's current licensing basis, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 134 n.115 (2011)

Chevron, U.S.A. v. Natural Resources Defense Council, Inc., 467 U.S. 837 (1984)
a court cannot defer to interpretive proposals offered by counsel at oral argument and affirm on the basis of that reading when the statute does not plainly compel the reading being proposed; CLI-11-12, 74 NRC 470 (2011)

Citizens Against Burlington v. Busey, 938 F.2d 190, 195-96 (D.C. Cir. 1991)
reasonable alternatives under NEPA are limited to those alternatives that will bring about the ends of the proposed action; LBP-11-21, 74 NRC 137 (2011)

City of Grapevine v. Department of Transportation, 17 F.3d 1502, 1506 (D.C. Cir. 1994)
reasonable alternatives under NEPA are limited to those alternatives that will bring about the ends of the proposed action; LBP-11-21, 74 NRC 137 (2011)

Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)
NRC follows contemporaneous judicial concepts of standing, which call for a showing of a concrete and particularized injury that is fairly traceable to the challenged action and is likely to be redressed by a favorable decision, where the injury is to an interest arguably within the zone of interests protected by the governing statute; LBP-11-29, 74 NRC 616 (2011)

Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Units 1 and 2), ALAB-443, 6 NRC 741, 755 (1977)
affidavits shall set forth such facts as would be admissible in evidence and shall show affirmatively that the affiant is competent to testify to the matters stated therein; LBP-11-23, 74 NRC 332 (2011)

Comcast Corp. v. Federal Communications Commission, 526 F.3d 763, 769 n.2 (D.C. Cir. 2008)
courts presume that federal agencies act in good faith; LBP-11-39, 74 NRC 868 n.21 (2011)

Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 and 2), CLI-99-4, 49 NRC 185, 191 (1999)
in license amendment proceedings, petitioners may not claim standing simply upon a residence or visits near the plant, unless the proposed action quite obviously entails an increased potential for offsite consequences; LBP-11-29, 74 NRC 616 (2011)

Communities, Inc. v. Busey, 956 F.2d 619, 626 (6th Cir. 1992)
agency NEPA requirements are tempered by a practical rule of reason; LBP-11-18, 74 NRC 38 (2011)

Connecticut Yankee Atomic Power Co. (Haddam Neck Plant), CLI-01-25, 54 NRC 368, 373-74 (2001)
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Connecticut Yankee Atomic Power Co. (Haddam Neck Plant), CLI-01-25, 54 NRC 368, 374 (2001)
expansion of issues for litigation that results from a board action does not have a pervasive and unusual effect on the litigation; CLI-11-10, 74 NRC 256 n.24 (2011)

Consolidated Edison Co. of New York (Indian Point, Unit 2), LBP-83-5, 17 NRC 134, 136 (1983)
in NRC proceedings, pro se litigants are generally not held to the same high standards of pleading and practice as parties with counsel; LBP-11-20, 74 NRC 96 n.26 (2011); LBP-11-23, 74 NRC 333 n.23 (2011)

Consolidated Edison Co. of New York (Indian Point, Units 1, 2, and 3), ALAB-319, 3 NRC 188, 190 (1976)
licensing boards may raise significant environmental and safety issues sua sponte; LBP-11-23, 74 NRC 367 (2011)

Consolidated Edison Co. of New York (Indian Point, Units 1, 2, and 3), ALAB-319, 3 NRC 188, 193 (1976)
because the licensing board's hearing had concluded and the seismic issues raised in the proceeding had been resolved or abandoned, the adequacy of the seismic design of the facility was a matter within the jurisdiction of the NRC Staff; LBP-11-22, 74 NRC 284 (2011)

Consumers Energy Co. (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 409 (2007)
each organization member seeking representation must qualify for standing in his or her own right, the interests that the representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action; LBP-11-29, 74 NRC 617, 619 (2011)
to demonstrate representational standing, an organization must show that at least one of its members would be affected by the agency's approval of the requested license, identify such members, and establish (preferably through an affidavit) that such members have authorized it to act as their representative and to request a hearing on their behalf; LBP-11-29, 74 NRC 617 (2011)

Consumers Power Co. (Midland Plant, Units 1 and 2), CLI-74-5, 7 AEC 19, 31 (1974), *rev'd on other grounds,* CLI-97-15, 46 NRC 294 (1997)
applicant may bear the burden of proof on contentions asserting deficiencies in its environmental report and where applicant becomes a proponent of a particular challenged position set forth in the environmental impact statement; LBP-11-38, 74 NRC 830 (2011)

Costle v. Pacific Legal Foundation, 445 U.S. 198, 204 (1980)
lack of clarity about which electrical cables might be subject to any saltwater environment, however high or low the concentration, and about the effects of and efforts to address this, is a level of concern sufficient to warrant further inquiry and exploration; LBP-11-20, 74 NRC 113-14 (2011)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 336 (2009)
on appeal, the Commission will defer to a board's rulings on contention admissibility absent an error of law or abuse of discretion; CLI-11-11, 74 NRC 431 (2011)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 365 & n.178 (2009)
piecemeal appeals during ongoing licensing board proceedings are generally disfavored; CLI-11-6, 74 NRC 210 (2011)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 549 n.61 (2009)
good cause for failure to file on time is the most important late-filing factor; LBP-11-32, 74 NRC 662 (2011)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 552-53 (2009)
contention pleading rules are designed to ensure that only well-defined issues are admitted for hearing and a board should not add material not raised by a petitioner in order to render a contention admissible; CLI-11-11, 74 NRC 437, 457 (2011)
it is intervention petitioner's responsibility to put others on notice as to the issues it seeks to litigate in a proceeding; CLI-11-11, 74 NRC 457 (2011)

Crow Butte Resources, Inc. (North Trend Expansion Project), CLI-09-12, 69 NRC 535, 562, 573 (2009)
bare assertions are insufficient to support a contention; CLI-11-11, 74 NRC 452 n.139 (2011)

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Curators of the University of Missouri (TRUMP-S Project), CLI-95-8, 41 NRC 386, 395 (1995)
a dynamic licensing process is followed in Commission licensing proceedings; LBP-11-22, 74 NRC 271 (2011)
Defenders of Wildlife v. Andrus, 627 F.2d 1238, 1243-44 (D.C. Cir. 1980)
NEPA applies to agencies of the federal government, not to private parties such as applicants for NRC licenses; LBP-11-32, 74 NRC 666 (2011)
Department of Transportation v. Public Citizen, 541 U.S. 752, 767-69 (2004)
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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-11-21, 74 NRC 125 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-08-17, 68 NRC 231, 233 (2008)
contention admissibility requirements are strict by design in order to help assure that the NRC hearing process will be appropriately focused on disputes that can be resolved in the adjudication; LBP-11-29, 74 NRC 618 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 120 (2009)
a motion to file new or amended contentions must address the motion to reopen standards after an intervention petition has been denied; LBP-11-20, 74 NRC 92 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 120, 122-23 (2009)
NRC's rules of procedure do not permit the filing of notice pleadings, i.e., general, vague, or unsupported claims intended to act as placeholders for later elaboration; LBP-11-21, 74 NRC 133 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 120-21 (2009)
a licensing board's use of the reopening standard to evaluate the admissibility of contentions submitted after the board denied petitioners' hearing request was affirmed on appeal; LBP-11-22, 74 NRC 283 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 122-23 (2009)
appellants may not amend their contentions on appeal; CLI-11-8, 74 NRC 221 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 124 (2009)
when petitioner proposes a new contention after the record has closed, petitioner must address the reopening standards contemporaneously with a late-filed intervention petition, which must satisfy the standards for both contention admissibility and late filing; CLI-11-8, 74 NRC 226 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 125 (2009)
speculation by an expert cannot form the basis for admission of a contention on the basis of the matter being exceptionally grave; LBP-11-20, 74 NRC 89 n.125 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), CLI-09-5, 69 NRC 115, 126 (2009)
failure to address the requirements of 10 C.F.R. 2.309(c) and (f)(2) is reason enough to reject proposed new contentions; LBP-11-21, 74 NRC 134 n.111 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Unit 3), LBP-02-5, 55 NRC 131, 145 (2002), *aff'd,* CLI-02-27, 56 NRC 367, 371-72 (2002)
post-9/11 motion to reopen satisfied rules for reopening the record and for late-filed contentions, but contention involving a license amendment request for reconfiguring a spent fuel pool was inadmissible; CLI-11-5, 74 NRC 170 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *petition for reconsideration denied,* CLI-02-1, 55 NRC 1 (2002)
rules on contention admissibility are strict by design; LBP-11-22, 74 NRC 278 (2011)

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-11-21, 74 NRC 125 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 365 (2001)
for management integrity and character to be a viable contention, there must be a direct and obvious relationship between these issues and the challenged licensing action; CLI-11-8, 74 NRC 231 n.83 (2011)
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 precludes admission of a contention; LBP-11-21, 74 NRC 125 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 637-38 (2004)
NRC's license renewal process concerns a particularized and limited inquiry into the potential impacts of an additional 20 years of nuclear power plant operation, not day-to-day operational issues; LBP-11-21, 74 NRC 129 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 639 n.25 (2004)
appellants must clearly identify the errors in the decision below and ensure that their brief contains sufficient information and cogent argument to alert the other parties and the Commission to the precise nature of and support for their claims; CLI-11-8, 74 NRC 220 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 639-40 (2004)
failure of petitioner to cite even a single specific deficiency in the application precludes satisfaction of the specificity requirement of 10 C.F.R. 2.309(f)(1)(vi); LBP-11-29, 74 NRC 622 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 559-60 (2005)
the Commission has endorsed a four-pronged test for grant of a rule waiver; LBP-11-35, 74 NRC 714 (2011)
to waive the generic assessment in NRC regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in a license renewal proceeding, the Commission must conclude that the rule's strict application would not serve the purpose for which it was adopted; CLI-11-11, 74 NRC 449 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560 (2005)
for a rule waiver request to be granted, all four factors must be met; LBP-11-35, 74 NRC 714-15 (2011)
use of "and" in the list of requirements for rule waiver means that all four factors must be met; CLI-11-11, 74 NRC 452 n.138 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560-61 (2005)
emergency planning is neither germane to age-related degradation nor unique to the period covered by a license renewal application; LBP-11-35, 74 NRC 715 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 561 (2005)
challenges to 10 C.F.R. 50.54(hh)(2) are neither germane to age-related degradation nor unique to the license renewal period; LBP-11-21, 74 NRC 131 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 562 (2005)
the "uniqueness" factor of the rule waiver test is interpreted; LBP-11-35, 74 NRC 717 (2011)
Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), LBP-04-15, 60 NRC 81, 89 (2004)
where a contention alleges a deficiency or error in the application, the deficiency or error must have some independent health and safety significance; LBP-11-23, 74 NRC 336 (2011)

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Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 230 & n.79 (2007)
in mandatory hearings, Commission discussion regarding alternative site review supplements the environmental impact statement; LBP-11-26, 74 NRC 536 n.13 (2011)

Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 235-36 & n.115 (2007)
information may be unavoidably incomplete or unavailable, and under those circumstances, a final environmental impact statement can overcome this deficiency if it states that fact, explains how the missing information is relevant, sets forth the existing information, and evaluates the environmental impacts to the best of the agency's ability; CLI-11-11, 74 NRC 444 n.94 (2011)
NRC looks to Council on Environmental Quality regulations for guidance, but is not bound by them; CLI-11-11, 74 NRC 444 (2011)

Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-06-24, 64 NRC 360, 365 (2006)
the licensing board chose to terminate the contested portion of the proceeding after granting summary disposition on the only pending contentions, but the board did not state that its decision was compelled by either precedent or regulation; LBP-11-22, 74 NRC 285 (2011)

Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), LBP-07-9, 65 NRC 539, 559-60 (2007)
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 519 (2011)

Dr. James E. Bauer (Order Prohibiting Involvement in NRC-Licensed Activities), LBP-95-7, 41 NRC 323, 328 (1995)
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Dubois v. U.S. Department of Agriculture, 102 F.3d 1273, 1291 (1st Cir. 1996)
NEPA has a dual purpose of ensuring that federal officials fully take into account the environmental consequences of a federal action before reaching major decisions and informing the public, Congress, and other agencies of those consequences; LBP-11-35, 74 NRC 766 n.13 (2011)

Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-28, 54 NRC 393 (2001), *reconsideration denied,* CLI-02-2, 55 NRC 5 (2002)
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requests to suspend or hold proceedings in abeyance following the September 11 terrorist attacks, as well as more recently, were considered pursuant to the Commission's inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 158 (2011)

Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), CLI-01-28, 54 NRC 393, 398-401 (2001), *reconsideration denied,* CLI-02-2, 55 NRC 5 (2002)
petition for suspension of proceeding following 9/11 attack was denied; CLI-11-5, 74 NRC 156 (2011)

Duke Cogema Stone & Webster (Savannah River Mixed Oxide Fuel Fabrication Facility), LBP-05-15, 62 NRC 53, 54 (2005)
boards may continue the adjudicatory proceeding until the deadlines for filing proposed new contentions have expired and the board has resolved all admitted and proposed contentions filed within the deadlines; LBP-11-22, 74 NRC 271 (2011)
proceedings are terminated after all admitted contentions had been resolved and the time for late-filed contentions arising out of information in the Staff's final safety evaluation report has expired without the filing of any such contentions; LBP-11-22, 74 NRC 273 n.75, 285 (2011)

Duke Energy Carolinas, LLC (William States Lee III Nuclear Station, Units 1 and 2), CLI-09-21, 70 NRC 927, 931 (2009)
for power reactors, NRC Staff review should encompass emissions from the uranium fuel cycle as well as from construction and operation of the facility to be licensed; LBP-11-26, 74 NRC 541 (2011)

under NEPA, NRC must assess the environmental impacts of a proposed facility, including those impacts associated with greenhouse gas emissions by the proposed facility; LBP-11-26, 74 NRC 545 (2011)
Duke Energy Carolinas, LLC (William States Lee III Nuclear Station, Units 1 and 2), LBP-08-17, 68 NRC 431, 443 (2008)
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Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 67 (2004)
licensing boards are not empowered to superintend, to any extent, the conduct of Staff technical reviews; LBP-11-30, 74 NRC 633 (2011)
Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-6, 59 NRC 62, 74 (2004)
licensing boards lack authority to direct the Secretary's administrative activities regarding the handling of documents; CLI-11-13, 74 NRC 641 (2011)
Duke Energy Corp. (Catawba Nuclear Station, Units 1 and 2), CLI-04-21, 60 NRC 21, 27-28 (2004)
based on his qualifications in education and experience, intervenors' witness was found qualified to testify but not specifically on issues related to nuclear engineering, such as events at the Fukushima Dai-ichi plant, core damage frequency calculations, and effectiveness of SAMDAs; LBP-11-38, 74 NRC 834 (2011)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-20, 54 NRC 211, 214 (2001)
boards may not commence a hearing on environmental issues before the final environmental impact statement is issued, and may only commence a hearing with respect to safety issues prior to issuance of the final safety evaluation report if it will expedite the proceeding without adversely impacting the Staff's ability to complete its evaluations in a timely manner; LBP-11-22, 74 NRC 272 n.69 (2011)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-27, 54 NRC 385 (2001)
requests to suspend or hold proceedings in abeyance following the September 11 terrorist attacks, as well as more recently, were considered pursuant to the Commission's inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 158 (2011)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-27, 54 NRC 385, 388, 390-91 (2001)
abeyance of proceeding denied where proceeding was at an early stage, there was no risk of immediate threat to public health and safety, there were non-terrorism-related contentions to be considered, and the only "harm" to petitioner would be inevitable litigation costs; CLI-11-5, 74 NRC 157, 163 (2011)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-27, 54 NRC 385, 388, 391 (2001)
any changes in NRC rules post-9/11 that might bear on license renewal reviews could be addressed via late-filed contentions; CLI-11-5, 74 NRC 157 (2011)
post-9/11 abeyance of proceeding is unnecessary because there would be time to apply any new rules that might result from the generic review of terrorism-related issues; CLI-11-5, 74 NRC 157 (2011)
Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-01-27, 54 NRC 385, 388, 392 (2001)
motion to dismiss operating license renewal application or hold the proceeding in abeyance pending the Commission's comprehensive post-September 11 review of its rules and policies is denied; CLI-11-5, 74 NRC 157 (2011)
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)
the purpose of the severe accident mitigation alternatives review is to ensure than any plant changes in hardware, procedures, or training that could significantly improving severe accident safety performance are identified and assessed; LBP-11-17, 74 NRC 21 (2011); LBP-11-18, 74 NRC 40 n.60 (2011)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-17, 56 NRC 1, 8 (2002)
for an admissible contention petitioners did not have to prove outright that a SAMA analysis was deficient; CLI-11-11, 74 NRC 443 (2011)
portion of a contention asserting that applicant failed to consider the results of a particular study in its SAMA analysis is admissible; CLI-11-11, 74 NRC 443 (2011)

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)
petitioner must approximate the relative cost and benefit of a challenged SAMA or provide at least some ballpark consequence and implementation costs should the SAMA be performed; CLI-11-11, 74 NRC 442 (2011)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-26, 56 NRC 358, 363 (2002)
license renewal safety review is limited to the matters specified in 10 C.F.R. Part 54, which focus on the management of aging for certain systems, structures, and components, and review of time-limited aging analyses; LBP-11-21, 74 NRC 126 (2011)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 379 (2002)
the scope of a contention is limited to the issues of law and fact pleaded with particularity in the contention and any factual and legal material in support thereof; LBP-11-38, 74 NRC 833 (2011)

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)
board's designation of a contention as a contention of omission is a means to limit its scope; CLI-11-11, 74 NRC 443 n.92 (2011)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 382-84 (2002)
licensing boards have commonly afforded intervenors the opportunity to propose new contentions to challenge the new information, even though no contention is pending; LBP-11-22, 74 NRC 277 (2011)

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)
alleged defects in applicant's environmental report may be mooted by the content of NRC's environmental impact statement or supplemental environmental impact statement; LBP-11-28, 74 NRC 608 (2011)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 388 n.77 (2002)
a severe accident mitigation alternative need not be implemented during a particular plant's license renewal review if the Commission is concurrently resolving the safety improvement achieved by that SAMA through a generic process attached to the agency's review of all plants' current licensing bases; LBP-11-17, 74 NRC 25 (2011)
NEPA does not mandate the particular decisions that an agency must reach, only the process the agency must follow while reaching decisions; LBP-11-17, 74 NRC 27 n.77 (2011)
NRC shall require backfitting of a facility only when it determines that there will be a substantial increase in the overall protection of the public health and safety or the common defense and security and the direct and indirect costs of implementation are justified in view of this increased protection; LBP-11-17, 74 NRC 22 n.53 (2011)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 428 (2003)
to be admissible, contentions must include specific grievances beyond mere notice pleading; LBP-11-29, 74 NRC 618 (2011)

Duke Energy Corp. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 431 (2003)
because severe accident mitigation alternatives analysis is site-specific, NEPA demands no fully developed plan or detailed examination of specific measures that will be used to mitigate adverse environmental effects; LBP-11-18, 74 NRC 37 (2011); LBP-11-23, 74 NRC 330 (2011)

sufficiency of the NRC's hard look at the benefits of SAMAs in comparison to their costs is subject to litigation in a license renewal proceeding; LBP-11-17, 74 NRC 21 (2011)
Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 334 (1999)
it is intervention petitioner's responsibility to put others on notice as to the issues it seeks to litigate; CLI-11-11, 74 NRC 457 (2011)
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-11-21, 74 NRC 125 (2011)
Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)
admission of contentions that NRC may ultimately deal with generically through notice-and-comment rulemaking is precluded; LBP-11-32, 74 NRC 663 (2011)
erring on the side of caution and at least looking at the information would be in order, except to the extent that the matters are about to become the subject of rulemaking; LBP-11-23, 74 NRC 327 (2011)
petitioners may not raise in adjudicatory proceedings contentions attacking the agency's rules and regulations or contentions that are the subject of ongoing rulemakings; LBP-11-29, 74 NRC 618 (2011)
Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790 (1985)
hearing notices are the means by which the Commission identifies the subject matter of the hearings and delegates to boards the authority to conduct proceedings; LBP-11-22, 74 NRC 274 (2011)
licensing boards may exercise only the jurisdiction conferred upon them by the Commission; LBP-11-22, 74 NRC 274 (2011)
Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), CLI-83-19, 17 NRC 1041, 1049 (1983)
although all environmental contentions may, in a general sense, ultimately challenge NRC's compliance with NEPA, NRC regulations expressly permit the lodging of contentions against an applicant's environmental report well before release of NRC's NEPA documents; LBP-11-38, 74 NRC 830 (2011)
for NEPA contentions, the burden of proof shifts to NRC Staff, because NRC, not the applicant, bears the ultimate burden of complying with NEPA; LBP-11-38, 74 NRC 829-30 (2011)
Duke Power Co. (Catawba Nuclear Station, Units 1 and 2), LBP-83-8A, 17 NRC 282, 285 (1983)
NRC cannot delegate its NEPA responsibilities to a private party; LBP-11-32, 74 NRC 666 n.29 (2011)
Duquesne Light Co. (Beaver Valley Power Station, Unit 1), ALAB-109, 6 AEC 243, 246 (1973)
a carry-over contention must be subjected to especially careful scrutiny by the board at the prehearing stage; LBP-11-34, 74 NRC 696 (2011)
contentions cannot be automatically discarded by a hearing board simply because they repeat contentions advanced in a different proceeding; LBP-11-34, 74 NRC 696 (2011)
English v. General Electric Co., 496 U.S. 72, 81 (1990)
the 1959 amendments to the Atomic Energy Act were intended generally to increase the states' role in regulation of nuclear materials; CLI-11-12, 74 NRC 473-74 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-08-2, 67 NRC 31, 34 (2008)
a partial initial decision is one rendered following an evidentiary hearing on one or more contentions, but that does not dispose of the entire matter; CLI-11-6, 74 NRC 209 (2011); CLI-11-10, 74 NRC 255 (2011)
grant of summary disposition where other contentions are pending is not a final decision and is appealable only upon a showing that the standards for interlocutory review have been met; CLI-11-6, 74 NRC 209 n.38 (2011); CLI-11-14, 74 NRC 810 (2011)
parties may file a petition for review of licensing board full or partial initial decisions, both of which are considered to be final; CLI-11-14, 74 NRC 810 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-08-2, 67 NRC 31, 34 n.14 (2008)
the basis for allowing immediate appellate review of partial initial decisions rests on prior appeal board decisions permitting review of a licensing board ruling that disposes of a major segment of the case or terminates a party's right to participate; CLI-11-14, 74 NRC 810-11 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-08-2, 67 NRC 31, 35 (2008)
a board's disputed legal ruling does not necessarily warrant immediate interlocutory review; CLI-11-6, 74 NRC 208 n.31 (2011)

NRC disfavor of piecemeal appeals leads it to grant interlocutory review only upon a showing of extraordinary circumstances; CLI-11-14, 74 NRC 811 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-09-11, 69 NRC 529, 533 (2009)
the key consideration in determining materiality of a SAMA contention is whether it purports to show that an additional SAMA should have been identified as potentially cost-beneficial; CLI-11-11, 74 NRC 441 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 290-91 (2010)
severe accident mitigation alternatives are safety enhancements such as a new hardware item or procedure intended to reduce the risk of severe accidents; LBP-11-33, 74 NRC 680 n.7 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 291 (2010)
if the cost of implementing a particular severe accident mitigation alternative is greater than its estimated benefit, the SAMA is not considered cost-beneficial to implement; LBP-11-33, 74 NRC 680 n.7 (2011)
severe accident mitigation design alternatives analysis examines whether implementing a SAMDA would decrease the probability-weighted consequences of severe accidents; LBP-11-38, 74 NRC 826 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 293-94 n.26 (2010)
a license renewal applicant is compelled to implement safety-related severe accident mitigation alternatives that deal with aging management; LBP-11-17, 74 NRC 22 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 294 n.26 (2010)
severe accident mitigation alternatives unrelated to aging management need not be implemented pursuant to the NRC's license renewal safety review under Part 54; LBP-11-17, 74 NRC 25 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 297 (2010)
the correct inquiry with regard to the first criterion for summary disposition is whether there are material factual issues that properly can be resolved only by a finder of fact because they may reasonably be resolved in favor of either party; LBP-11-31, 74 NRC 648 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 315-16 (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-11-38, 74 NRC 831-32 (2011)
environmental impact statements are not intended to be research documents, reflecting the frontiers of scientific methodology, studies, and data; LBP-11-38, 74 NRC 831 (2011)
in judging adequacy of a severe accident mitigation design alternatives analysis, the pertinent legal question becomes not whether plainly better SAMDA analysis assumptions or methodologies could have been employed, or whether a particular SAMDA analysis could have been refined further; LBP-11-38, 74 NRC 832 (2011)
NEPA allows agencies to select their own methodology as long as that methodology is reasonable; LBP-11-38, 74 NRC 832 (2011)
NEPA should be construed in the light of reason if it is not to demand virtually infinite study and resources; LBP-11-38, 74 NRC 831 (2011)
there is no NEPA requirement to use the best scientific methodology; LBP-11-38, 74 NRC 831 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 316-17 (2010)
NRC inquiry is to ascertain whether it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost-benefit conclusions for the severe accident mitigation design alternatives analysis; LBP-11-38, 74 NRC 832 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 453-54 (2010)
the current licensing basis is the set of NRC requirements (including regulations, orders, technical specifications, and license conditions) applicable to a specific plant, and includes the licensee's written, docketed commitments for ensuring compliance with applicable NRC requirements and the plant-specific design basis; LBP-11-17, 74 NRC 21-22 n.48 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 453-56 (2010)
license renewal review is a limited one, focused on aging management issues; CLI-11-5, 74 NRC 164 (2011)

Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 453-56, 460-63 (2010)
the scope of license renewal safety review is explained; CLI-11-11, 74 NRC 435 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-14, 71 NRC 449, 471, 477 (2010)
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Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-15, 71 NRC 479, 482 (2010)
to be admissible, contentions must include specific grievances beyond mere notice pleading; LBP-11-29, 74 NRC 618 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-22, 72 NRC 202, 208-09 (2010)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including, where appropriate, full disclosures of any known shortcomings in available methodology, incomplete or unavailable information and significant uncertainties, and a reasoned evaluation of whether and to what extent these or other considerations credibly could or would alter the analysis on which SAMDAs are considered; LBP-11-38, 74 NRC 832 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), CLI-10-28, 72 NRC 553, 554 (2010)
the Commission generally defers to licensing boards on case management issues; CLI-11-13, 74 NRC 640 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-06-23, 64 NRC 257, 340 (2006)
to evaluate the impact of a fault on current operations, a probabilistic risk assessment rather than a deterministic analysis is the accepted and standard practice in SAMA analyses; CLI-11-11, 74 NRC 439 (2011)
Entergy Nuclear Generation Co. (Pilgrim Nuclear Power Station), LBP-11-23, 74 NRC 287, 324 (2011) (Young, J., concurring in part and dissenting in part)
the board has ruled on these Fukushima-related hearing requests and rejected them pursuant to 10 C.F.R. 2.326, 2.309(c), and 2.309(f)(1); CLI-11-5, 74 NRC 164-64 n.91 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-08-7, 67 NRC 187,192 (2008)
the Commission generally defers to licensing boards on case management issues; CLI-11-13, 74 NRC 640 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-09-6, 69 NRC 128, 133-37 (2009)
appellate review of interlocutory licensing board orders is disfavored, and will be undertaken as a discretionary matter only in extraordinary circumstances; CLI-11-10, 74 NRC 256 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-09-6, 69 NRC 128, 137 (2009)
piecemeal appeals during ongoing licensing board proceedings are generally disfavored; CLI-11-6, 74 NRC 210 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-09-6, 69 NRC 128, 138 (2009)
the Commission disfavors requests to invoke its inherent supervisory authority over adjudications; CLI-11-13, 74 NRC 637 n.11 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-10-30, 72 NRC 564, 568 (2010)
admission of a contention that might require further explanation of severe accident mitigation alternatives cost-benefit analysis did not have a pervasive and unusual effect on the litigation; CLI-11-6, 74 NRC 209 n.38 (2011)
a board's disputed legal ruling does not necessarily warrant immediate interlocutory review; CLI-11-6, 74 NRC 208 n.31 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-08-13, 68 NRC 43, 64 (2008)
contentions that amount to an attack on applicable statutory requirements or represent a challenge to the basic structure of the Commission's regulatory process must be rejected; LBP-11-29, 74 NRC 618 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-10-13, 71 NRC 673, 678 & n.12 (2010)
the current licensing basis is the set of NRC requirements (including regulations, orders, technical specifications, and license conditions) applicable to a specific plant, and includes the licensee's written, docketed commitments for ensuring compliance with applicable NRC requirements and the plant-specific design basis; LBP-11-17, 74 NRC 21 (2011)

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-10-13, 71 NRC 673, 679 n.17 (2010)
sufficiency of the NRC's hard look at the benefits of SAMAs in comparison to their costs is subject to litigation in a license renewal proceeding; LBP-11-17, 74 NRC 21 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-10-13, 71 NRC 673, 679 & n.18 (2010)
a license renewal applicant is compelled to implement safety-related severe accident mitigation alternatives that deal with aging management; LBP-11-17, 74 NRC 22 (2011)
Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), LBP-10-13, 71 NRC 673, 679 & n.19 (2010)
NRC Staff has authority to require implementation of non-aging-management severe accident mitigation alternatives through its current licensing basis backfit review under Part 50 or through setting conditions of the license renewal; LBP-11-17, 74 NRC 22 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 22 (2007), *aff'd, Massachusetts v. United States,* 522 F.3d 115 (1st Cir. 2008)
NRC Staff could seek Commission permission to suspend one or more of the generic determinations in the license renewal environmental rules, and include a new analysis in pending, plant-specific environmental impact statements; CLI-11-5, 74 NRC 175 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 22 n.37 (2007), *aff'd, Massachusetts v. United States,* 522 F.3d 115 (1st Cir. 2008)
request to suspend license renewal proceedings pending disposition of a rulemaking petition is premature; CLI-11-5, 74 NRC 174 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1 (2010)
the Commission generally defers to licensing boards on case management issues; CLI-11-13, 74 NRC 640 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 10 n.37 (2010)
during pendency of remand, intervenors 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; LBP-11-20, 74 NRC 76 n.70 (2011)
if a proceeding remains open only on a limited issue, intervenors must submit a motion to reopen to address any genuinely new issues related to the license renewal application that previously could not have been raised; LBP-11-20, 74 NRC 92 (2011)
the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; LBP-11-20, 74 NRC 77 n.75 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 10-11 n.37 (2010)
a proceeding will remain open during the pendency of a remand; LBP-11-23, 74 NRC 294 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 36, 38 (2010)
a commitment to implement an aging management plan that NRC finds is consistent with the GALL Report constitutes one acceptable method for compliance, but this does not insulate such an approach from challenge by an intervenor, and is not binding on a licensing board in an adjudication; LBP-11-20, 74 NRC 104 n.73 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 45 n.246 (2010)
in NRC proceedings, pro se litigants are generally not held to the same high standards of pleading and practice as parties with counsel; LBP-11-20, 74 NRC 96 n.26 (2011); LBP-11-23, 74 NRC 333 n.23 (2011)
Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-10-17, 72 NRC 1, 53 n.304 (2010)
good cause for late filing is given the greatest weight in a section 2.309(c) analysis; LBP-11-23, 74 NRC 328 (2011)

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Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 337 (2011)
rationale for NRC's policy of generally disfavoring the filing of new contentions at the eleventh hour of an adjudication is based on the doctrine of finality, which states that at some point, an adjudicatory proceeding must come to an end; LBP-11-20, 74 NRC 77 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 338 (2011)
a request for hearing regarding a newly proffered contention cannot be admitted unless it satisfies the stringent standards for reopening the record; LBP-11-20, 74 NRC 77 n.75 (2011)
the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; CLI-11-8, 74 NRC 222 n.39 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 338-39 (2011)
there simply would be no end to NRC licensing proceedings if petitioners could ignore timeliness requirements and add new contentions at their convenience based on information that could have formed the basis for a timely contention at the outset of the proceeding; LBP-11-20, 74 NRC 85 n.109 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 344 (2011)
an NRC Information Notice that merely summarized information that was previously available is not new information upon which a new contention can be based; LBP-11-20, 74 NRC 82-83 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 346 (2011)
the standard for a motion to reopen is measured using the Commission's test of whether it has been shown that a motion for summary disposition could be defeated; LBP-11-20, 74 NRC 81 n.94, 94 (2011); LBP-11-23, 74 NRC 321 n.169, 332 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 348 (2011)
intervenor did not come close to demonstrating a likelihood that it would have prevailed on the merits of a new contention and that its success would have materially altered the outcome of the proceeding; LBP-11-20, 74 NRC 83, 84 n.108 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-04-28, 60 NRC 548, 553 (2004)
extended power uprate proceedings trigger application of the 50-mile proximity presumption, given that such license applications entail an obvious increase in the potential for offsite consequences; LBP-11-29, 74 NRC 619 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-04-33, 60 NRC 749, 753 (2004)
a dynamic licensing process is followed in Commission licensing proceedings; LBP-11-22, 74 NRC 271 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-06-14, 63 NRC 568, 571-76 (2006)
new contentions filed after the record has closed must satisfy the timeliness requirement of either 10 C.F.R. 2.309(f)(2) or 2.309(c), and the admissibility requirements of section 2.309(f)(1); LBP-11-22, 74 NRC 269 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-07-15, 66 NRC 261, 266 n.11 (2007)
motions seeking admission of new or amended contentions must be filed within 30 days of the date the information that forms the basis for the contention becomes available; CLI-11-8, 74 NRC 218 n.8 (2011)

Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-10-19, 72 NRC 529, 531, 552 (Attach. A) (2010), *aff'd,* CLI-11-2, 73 NRC 333 (2011)
the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; LBP-11-22, 74 NRC 269 (2011)

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Entergy Nuclear Vermont Yankee, LLC (Vermont Yankee Nuclear Power Station), LBP-10-19, 72 NRC 529, 543, 548 (2010)

amendment to aging management plan extended the AMP for medium-voltage cables to also cover low-voltage cables; LBP-11-20, 74 NRC 99 n.42 (2011)

Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), CLI-05-17, 62 NRC 5, 39 (2005)

for the mandatory uncontested proceeding on uranium enrichment facility license, a licensing board is to conduct a simple sufficiency review rather than a de novo review on both safety and environmental issues; LBP-11-26, 74 NRC 519 (2011)

Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), CLI-05-17, 62 NRC 5, 39-40 (2005)

NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient; LBP-11-26, 74 NRC 519 (2011)

Exelon Generation Co., LLC (Early Site Permit for Clinton ESP Site), CLI-06-20, 64 NRC 15, 21-22 (2006)

in a mandatory hearing, a licensing board must narrow its inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance; LBP-11-26, 74 NRC 519-20 (2011)

Fansteel, Inc. (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 203 (2003)

mere notice pleading is insufficient for contention admission; LBP-11-21, 74 NRC 125 (2011)

petitioner cannot rest its contentions on bare assertions and speculation; LBP-11-21, 74 NRC 128, 133 (2011)

Fansteel, Inc. (Muskogee, Oklahoma, Site), CLI-03-13, 58 NRC 195, 204-05 (2003)

boards will not hunt for information that the agency's procedural rules require be explicitly identified and fully explained; CLI-11-8, 74 NRC 222 (2011)

FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685 (2011)

Fukushima-related contentions were dismissed as premature; LBP-11-39, 74 NRC 870 (2011)

FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685, 689 (2011)

admissibility of Fukushima-related contentions is determined; LBP-11-37, 74 NRC 779 n.3 (2011)

FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685, 696-97 (2011)

Fukushima-related contention is denied for failure of its proponent to contact the other parties to resolve the issue presented by the contention prior to its submission, for failure to show that the contention is within the scope of the proceeding or is material to the findings NRC must make, and for failure to reference any specific portion of the application at issue; LBP-11-37, 74 NRC 783 n.6 (2011)

FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685, 697-98 (2011)

absent voluntary action by applicant to amend its environmental report, intervenor wishing to raise new or revised post-ER environmental concerns must await issuance of Staff's draft environmental impact statement; LBP-11-37, 74 NRC 784 (2011)

FirstEnergy Nuclear Operating Co. (Davis-Besse Nuclear Power Station, Unit 1), LBP-11-34, 74 NRC 685, 698-99 (2011)

Fukushima-related contention based on a Staff Requirements Memorandum are inadmissible because the SRM does not define or impose any new requirements arising from the Fukushima accident and thus fails to establish a genuine dispute on a material issue of law or fact; LBP-11-37, 74 NRC 784 n.7 (2011)

Florida Power & Light Co. v. Lorion, 470 U.S. 729, 731 (1985)

for contentions that fall within the facility's current licensing basis, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 134 n.115 (2011)

Florida Power & Light Co. (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-06-21, 64 NRC 30, 33 (2006)
failure to read NRC regulations carefully does not constitute good cause for accepting late-filed petitions; LBP-11-34, 74 NRC 693 (2011)
Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989)
in reactor license renewal proceedings, 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 facility; LBP-11-21, 74 NRC 122 (2011)
Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329-30 (1989)
in license amendment proceedings, petitioners may not claim standing simply upon a residence or visits near the plant, unless the proposed action quite obviously entails an increased potential for offsite consequences; LBP-11-29, 74 NRC 616 (2011)
Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), ALAB-950, 33 NRC 492, 500-01 (1991)
a licensing board was not in error in finding a person not competent to address technical issues in responding to a motion for summary disposition; LBP-11-23, 74 NRC 332 (2011)
Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-91-13, 34 NRC 185, 188 (1991)
licensing boards may not raise issues sua sponte when the sole intervenor has withdrawn from the proceeding; LBP-11-22, 74 NRC 282 (2011)
Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-91-13, 34 NRC 185, 188 n.1 (1991)
adjudicatory proceedings terminate if intervenor either settles or abandons all of its contentions; LBP-11-22, 74 NRC 271 n.64 (2011)
once the sole intervenor in a proceeding withdraws, the proceeding is been brought to a close; LBP-11-22, 74 NRC 282 (2011)
Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 7 (2001)
relevant issues for an additional 20 years of reactor plant operation differ from those when a reactor plant is first built and licensed; LBP-11-21, 74 NRC 129 (2011)
Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 7-8 (2001)
license renewal safety review is limited to the matters specified in 10 C.F.R. Part 54, which focus on the management of aging for certain systems, structures, and components, and the review of time-limited aging analyses; LBP-11-21, 74 NRC 126 (2011)
Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 8 (2001)
applicants must demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation, at a detailed component and structure level, rather than at a more generalized system level; LBP-11-21, 74 NRC 126-27 (2011)
Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9 (2001)
entertaining contentions in a license renewal proceeding that challenge the current licensing basis would be both unnecessary and wasteful given ongoing agency oversight, review, and enforcement; LBP-11-21, 74 NRC 127 (2011)
many safety questions that relate to plant aging become important during the extended renewal term since the design of some components may have been based upon a service lifetime of only 40 years; LBP-11-21, 74 NRC 129 (2011)
the current licensing basis includes licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports; LBP-11-21, 74 NRC 130 n.86 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9-10 (2001)
while the license renewal process seeks to mitigate the detrimental effects of aging from operation beyond the initial license term, everyday public health and safety are ensured by the comprehensive and continuous process of operational oversight; LBP-11-21, 74 NRC 130 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 10 (2001)
safety culture, operational history, quality assurance, quality control, management competence, human factors, and emergency planning issues are beyond the scope of a license renewal proceeding; LBP-11-21, 74 NRC 129-30 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 11 (2001)
Category 1 issues are not subject to challenge in a relicensing proceeding, absent a waiver, because they involve environmental effects that are essentially similar for all plants and need not be assessed repeatedly on a site-specific basis; LBP-11-21, 74 NRC 132 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 13 (2001)
the aging-based safety review set out in Part 54 is analytically separate from Part 51's environmental inquiry and does not in any sense restrict NEPA; LBP-11-17, 74 NRC 21 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-6, 73 NRC 149, 169 n.13 (2011)
organizations may claim standing on their own behalf; LBP-11-29, 74 NRC 617 n.15 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675 (2011)
Fukushima-related contentions were dismissed as premature; LBP-11-39, 74 NRC 870 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 678-79 (2011)
admissibility of Fukushima-related contentions is determined; LBP-11-37, 74 NRC 779 n.3(2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 681 n.9 (2011)
applicant may update an environmental report if relevant new and significant information becomes available, but is under no regulatory or statutory obligation to effect such an update; LBP-11-34, 74 NRC 697 n.78 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 681-82 (2011)
absent voluntary action by applicant to amend its environmental report, intervenor wishing to raise new or revised post-ER environmental concerns must await issuance of Staff's draft environmental impact statement; LBP-11-37, 74 NRC 784 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 682 n.12 (2011)
petitioners may amend their contentions or file new contentions if the draft supplemental environmental impact statement differs significantly from the data or conclusions in applicant's documents; LBP-11-34, 74 NRC 698 (2011)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 6 and 7), LBP-11-33, 74 NRC 675, 683 (2011)
Fukushima-related contention based on a Staff Requirements Memorandum are inadmissible because the SRM does not define or impose any new requirements arising from the Fukushima accident and thus fails to establish a genuine dispute on a material issue of law or fact; LBP-11-37, 74 NRC 784 n.7 (2011)
issuance of a Staff Requirements Memorandum directing Staff to implement "without delay" the recommendations of the Fukushima Task Force does not render contentions admissible; LBP-11-36, 74 NRC 772 (2011)

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Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 118-22 (1995)
admission of a management integrity contention relied on references to a serious incident involving shutdown of the reactor, management responsible for the incident remained in place, and a purported climate of reprisals for bringing forward safety issues, and reference to at least one expert witness in support of the contention; CLI-11-11, 74 NRC 436 n.47 (2011)
Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 120 (1995)
past or current performance could inform the review of a license renewal application; CLI-11-11, 74 NRC 433 (2011)
Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), CLI-93-16, 38 NRC 25, 31-32 (1993)
challenges to an applicant's or licensee's character require sufficient support; CLI-11-9, 74 NRC 249 n.92 (2011)
GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 207 (2000)
absent documentary support, NRC has declined to assume that licensees will contravene its regulations; CLI-11-9, 74 NRC 249 n.92 (2011)
inspection reports could be seen as objective evidence that applicant may not adequately manage aging in the future; CLI-11-11, 74 NRC 433 n.28 (2011)
GPU Nuclear, Inc. (Oyster Creek Nuclear Generating Station), CLI-00-6, 51 NRC 193, 208 (2000)
bare assertions and speculation do not meet the Commission's standard of a concise statement of the alleged facts or expert opinions together with references to the specific sources and documents upon which the petitioner relies; LBP-11-21, 74 NRC 133 (2011)
GUARD v. NRC, 753 F.2d 1144, 1146 (D.C. Cir. 1985)
NRC is bound by the unambiguous language of its own regulations; LBP-11-22, 74 NRC 276 (2011)
Gulf States Utilities Co. (River Bend Station, Unit 1), CLI-94-10, 40 NRC 43, 51 (1994)
lack of clarity about which electrical cables might be subject to any saltwater environment, however high or low the concentration, and about the effects of and efforts to address this, is a level of concern sufficient to warrant further inquiry and exploration; LBP-11-20, 74 NRC 113-14 (2011)
Heartland Regional Medical Center v. Leavitt, 415 F.3d 24, 29-30 (D.C. Cir. 2005)
an agency that cures a problem identified by a court is free to reinstate the original result on remand; CLI-11-12, 74 NRC 469 n.20 (2011)
Hells Canyon Alliance v. U.S. Forest Service, 227 F.3d 1170, 1185 (9th Cir. 2000)
for a mitigation analysis, NEPA demands no fully developed plan or detailed examination of specific measures that will be employed to mitigate adverse environmental effects; LBP-11-23, 74 NRC 330 (2011)
Houston Lighting and Power Co. (South Texas Project, Units 1 and 2), LBP-85-8, 21 NRC 516, 519 (1985)
licensing boards may raise significant environmental and safety issues sua sponte; LBP-11-23, 74 NRC 367 (2011)
Huang v. Immigration and Naturalization Service, 47 F.3d 615, 617-18 (3d Cir. 1995)
notice of appeal of immigration judge's deportation order was timely filed because regulations governing timing of appeals were ambiguous; LBP-11-19, 74 NRC 63 n.12 (2011)
Hydro Resources, Inc. (2929 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-99-22, 50 NRC 3, 14 (1999)
new information requiring NRC Staff to prepare supplemental environmental review documents must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned; LBP-11-27, 74 NRC 601 (2011)
the measure of "significance" is whether the new information presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned; LBP-11-35, 74 NRC 751 n.218 (2011)
to merit additional NRC Staff environmental review, new information must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned; CLI-11-5, 74 NRC 168 (2011)
Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 55 (2001)
reasonable alternatives under NEPA are limited to those alternatives that will bring about the ends of the proposed action; LBP-11-21, 74 NRC 137 (2011)

Hydro Resources, Inc. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-04-39, 60 NRC 657, 659 (2004)
agency decisions regarding the need to supplement an environmental impact statement based on new and significant information are subject to the rule of reason; LBP-11-26, 74 NRC 536 n.13 (2011)
Hydro Resources, Inc. (P.O. Box 777, Crownpoint, NM 87313), CLI-06-9, 64 NRC 417, 419 (2006)
the Fukushima accident does not provide a seriously different picture of the environmental impact of the proposed uranium enrichment facility from what was previously envisioned; LBP-11-26, 74 NRC 536 n.13 (2011)
Hydro Resources, Inc. (P.O. Box 777, Crownpoint, NM 87313), LBP-06-19, 64 NRC 53, 62 (2006)
the twin aims of NEPA require the agency to consider all environmental impacts of a proposed action and to inform the public that it has conducted that review; LBP-11-17, 74 NRC 26 nn.70 (2011)
International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 252 (2001)
organizations may claim standing on their own behalf; LBP-11-29, 74 NRC 617 n.15 (2011)
Interstate Commerce Commission v. Jersey City, 322 U.S. 503, 514-15 (1944)
rehearings are not matters of right, but are pleas to discretion; LBP-11-20, 74 NRC 77 n.77 (2011)
Investment Co. Institute v. Board of Governors of the Federal Reserve System, 551 F.2d 1270, 1282-83 (D.C. Cir. 1977)
applicant is excused from filing in the wrong court because the rules are unclear; LBP-11-19, 74 NRC 63 n.12 (2011)
Kansas Gas & Electric Co. (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320, 338 (1978)
proponents of motions to reopen the record bear a heavy burden; LBP-11-22, 74 NRC 270 (2011)
Kerr-McGee Chemical Corp. (West Chicago Rare Earths Facility), CLI-96-2, 43 NRC 13, 15 (1996)
although transfer of pending license applications to an agreement state is not precluded on the ground that NRC and licensee had already devoted resources to the application when it was before the NRC, litigation at NRC had actually reached the point of NRC approval of an onsite plan at the time of the transfer of authority; CLI-11-12, 74 NRC 486 n.104 (2011)
Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976)
the only role for a court is to ensure that the agency has taken a hard look at environmental consequences; LBP-11-17, 74 NRC 22 n.52 (2011)
Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719 (3d Cir. 1989)
NRC must include consideration of certain severe accident mitigation alternatives in environmental reviews performed under NEPA § 102(2) in conjunction with operating license applications; CLI-11-5, 74 NRC 167 n.100 (2011)
Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 737 (3d Cir. 1989)
it cannot be said that consideration of Fukushima-related issues could not affect the ultimate decision on a license renewal application; LBP-11-35, 74 NRC 766 (2011)
Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 739 (3d Cir. 1989)
consideration of remote and speculative impacts is not required by NEPA; LBP-11-38, 74 NRC 859 (2011)
Long Island Lighting Co. (Shoreham Nuclear Power Station), ALAB-156, 6 AEC 831, 836 (1973)
according to the rule of reason, an agency need only address reasonably foreseeable impacts, not those that are remote and speculative or inconsequentially small; LBP-11-38, 74 NRC 831 (2011)
NEPA's hard look at environmental impacts is tempered by a rule of reason; LBP-11-38, 74 NRC 831 (2011)
Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 288 (1988)
NRC is bound by the unambiguous language of its own regulations; LBP-11-22, 74 NRC 276 (2011)
Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-83-30, 17 NRC 1132, 1135, 1138 (1983)
standards for reopening the record clearly do apply to a proposed new contention after all issues, except matters unrelated to the proposed new contention, have been litigated and the record has been closed; LBP-11-20, 74 NRC 77 n.75 (2011)
Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 87-88 (1998)
in assessing greenhouse gas impacts, NRC must devote its resources to taking a hard look at the issue; LBP-11-26, 74 NRC 545 (2011)

NEPA does not mandate substantive results but rather imposes procedural restraints on agencies, requiring them to take a hard look at the environmental impacts of a proposed action and reasonable alternatives to that action; LBP-11-38, 74 NRC 830 (2011)
NEPA's procedural obligation is carried out through an agency's issuance of an environmental impact statement documenting the agency's hard look at potential environmental impacts of the proposed action and reasonable alternatives thereto; LBP-11-39, 74 NRC 868 (2011)
Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 88 (1998)
taking a hard look at environmental impacts fosters both informed decisionmaking and informed public participation, and thus ensures that NRC does not act on incomplete information, only to regret its decision after it is too late to correct it; LBP-11-26, 74 NRC 545 (2011); LBP-11-38, 74 NRC 831 (2011)
Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 89 (1998)
the adjudicatory record, board decision, and any Commission appellate decisions become, in effect, part of the final environmental impact statement; CLI-11-6, 74 NRC 209 (2011); LBP-11-38, 74 NRC 832 (2011)
Louisiana Energy Services, L.P. (Claiborne Enrichment Center), LBP-96-25, 44 NRC 331, 338-39 (1996)
applicant may bear the burden of proof on contentions asserting deficiencies in its environmental report and where the applicant becomes a proponent of a particular challenged position set forth in the environmental impact statement; LBP-11-38, 74 NRC 830 (2011)
Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004)
replies may not contain new information that was not raised in either the petition or answers, but arguments that respond to the petition or answers are not precluded, whether they are offered in rebuttal or in support; CLI-11-14, 74 NRC 809 n.45 (2011)
Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-04-32, 60 NRC 223, 224 (2004)
reply briefs cannot be used to present entirely new facts or arguments in an attempt to reinvigorate thinly supported contentions; LBP-11-34, 74 NRC 694 (2011)
Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-06-22, 64 NRC 37, 46 (2006)
new material is outside the proper scope of a reply; CLI-11-14, 74 NRC 809 n.45 (2011)
Louisiana Energy Services, L.P. (National Enrichment Facility), LBP-05-13, 61 NRC 385, 443, *petition for review denied,* CLI-05-28, 62 NRC 721, 726 (2005)
previously recognized availability policy for domestic enrichment services supports a NEPA finding of a need for the construction and operation of uranium enrichment facilities; LBP-11-26, 74 NRC 533 (2011)
Louisiana Energy Services, L.P. (National Enrichment Facility), LBP-05-13, 61 NRC 385, 444-45, *petition for review denied,* CLI-05-28, 62 NRC 721, 726 (2005)
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Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1, 4-5 (1986)
licensing boards are discouraged from adding material to bolster a petitioner's or party's arguments or pleadings; CLI-11-11, 74 NRC 447 n.113 (2011)
Louisiana Power and Light Co. (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1, 5 (1986)
the burden of satisfying the reopening requirements is a heavy one, and proponents of a reopening motion bear the burden of meeting all of the requirements; LBP-11-20, 74 NRC 81 (2011)
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Marsh v. Oregon Natural Resources Council, 490 U.S. 360 (1989)
although petitioner's participation may broaden or delay the proceeding, this factor may not be relied on to exclude a contention, because NRC has a duty to consider new and significant information that arises before it makes its licensing decisions; LBP-11-35, 74 NRC 738 (2011)
Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 (1989)
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Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 371 n.14 (1989)
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Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 372-73, 374 (1989)
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Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 373 (1989)
a requirement to supplement environmental analysis every time any new information, such as recommended but not yet adopted regulatory reform, comes to light would render agency decisionmaking intractable, always awaiting updated information only to find the new information outdated by the time a decision is made; LBP-11-28, 74 NRC 610 (2011)
to merit additional NRC Staff environmental review, new information must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned; CLI-11-5, 74 NRC 168 (2011)
Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 373-74 (1989)
agency decisions regarding the need to supplement an environmental impact statement based on new and significant information are subject to the rule of reason; LBP-11-26, 74 NRC 536 n.13 (2011)
Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 385 (1989)
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Massachusetts v. NRC, 522 F.3d 115, 130 (1st Cir. 2008)
NEPA does not mandate how an agency must fulfill its obligations under the statute; LBP-11-23, 74 NRC 331 (2011)
Massachusetts v. NRC, 878 F.2d 1516, 1520 (1st Cir. 1989)
for contentions that fall within the facility's current licensing basis, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 134 n.115 (2011)
Massachusetts v. NRC, 924 F.2d 311, 333-36 (D.C. Cir. 1991)
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Mississippi Power & Light Co. (Grand Gulf Nuclear Station, Units 1 and 2), ALAB-130, 6 AEC 423, 426 (1973)
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National Treasury Employees Union v. Federal Labor Relations Authority, 30 F.3d 1510, 1514 (D.C. Cir. 1994)
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Natural Resources Defense Council, Inc. v. Hodel, 865 F.2d 288, 294 (D.C. Cir. 1988)
for a mitigation analysis, NEPA demands no fully developed plan or detailed examination of specific measures that will be employed to mitigate adverse environmental effects; LBP-11-23, 74 NRC 330 (2011)
New Jersey Environmental Federation v. NRC, No. 09-2567, 2011 WL 1878642, at *7 (3rd Cir. May 18, 2011)
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New Jersey Environmental Federation v. NRC, No. 09-2567, 2011 WL 1878642, at *9-10 (3rd Cir. May 18, 2011)
if a proceeding remains opens only on a limited issue, intervenors must submit a motion to reopen to address any genuinely new issues related to the license renewal application that previously could not have been raised; LBP-11-20, 74 NRC 92 (2011)
New Mexico ex rel. Richardson v. Bureau of Land Management, 565 F.3d 683, 708 (10th Cir. 2009)
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NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), LBP-11-2, 73 NRC 28, 53-56 (2011)
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NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 604, 609 (2011)
petitioner has not provided a potentially plausible case that the Task Force findings and recommendations on the Fukushima accident will paint a seriously different picture of the environmental impacts; LBP-11-32, 74 NRC 671 (2011)
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NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), LBP-11-28, 74 NRC 610 & n.35 (2011)
in the future the Commission might provide relevant guidance regarding the proper time frame for adjudicating Fukushima-related contentions; LBP-11-39, 74 NRC 871 n.42 (2011)
North Atlantic Energy Service Corp. (Seabrook Station, Unit 1), CLI-99-6, 49 NRC 201, 219 (1999)
at the contention pleading stage, parties must come forward with sufficiently detailed grievances to allow a board to conclude that genuine disputes exist justifying a commitment of adjudicatory resources; LBP-11-21, 74 NRC 133 (2011)
Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 484 (2010)
a board erred in admitting a contention pertaining to a plant's safety culture; CLI-11-11, 74 NRC 435 (2011)
Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 490 (2010)
license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to ongoing compliance oversight activity; CLI-11-11, 74 NRC 435 (2011)

Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 491 (2010)
conceptual issues such as operational history, quality assurance, quality control, management competence, and human factors are excluded from license renewal review in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components; CLI-11-11, 74 NRC 435 (2011)
operating license renewal applicants must make a detailed assessment, conducted on passive, safety-related physical systems, structures, and components of the plant; LBP-11-21, 74 NRC 129 (2011)
safety culture, operational history, quality assurance, quality control, management competence, human factors, and emergency planning issues are beyond the scope of a license renewal proceeding; LBP-11-21, 74 NRC 129-30 (2011)
Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 492 (2010)
NRC's license renewal process concerns a particularized and limited inquiry into the potential impacts of an additional 20 years of nuclear power plant operation, not day-to-day operational issues; LBP-11-21, 74 NRC 129 (2011)
to the extent petitioner believes there are existing management competence questions that merit immediate action, then its remedy is to direct Staff's attention to those matters by filing a request for action under 10 C.F.R. 2.206; CLI-11-11, 74 NRC 437 (2011)
Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 493 n.56 (2010)
although sufficiency of the application and NRC Staff's environmental review of that application are proper targets of contentions, sufficiency of Staff's safety review of the application is not; LBP-11-29, 74 NRC 620 n.37 (2011)
intervention petitioners may not challenge the adequacy of the safety evaluation report, but may file contentions challenging the combined license application based on new information in the SER; LBP-11-22, 74 NRC 273 n.72 (2011)
Northern States Power Co. (Prairie Island Nuclear Generating Plant, Units 1 and 2), CLI-10-27, 72 NRC 481, 493-94 (2010)
a safety evaluation report did not add a last piece of information, but merely compiled and organized preexisting information; CLI-11-8, 74 NRC 225 (2011)
Northside Sanitary Landfill, Inc. v. Thomas, 849 F.2d 1516, 1520 (D.C. Cir. 1988)
dialogue between administrative agencies and the public is a two-way street; CLI-11-12, 74 NRC 488 (2011)
Nuclear Fuel Services, Inc. (Erwin, Tennessee), LBP-05-8, 61 NRC 202, 207 (2005)
NEPA imposes a procedural requirement on an agency's decisionmaking process by mandating that an agency consider the environmental impacts of a proposed action and inform the public that it has taken those impacts into account in making its decision; LBP-11-17, 74 NRC 22 n.52 (2011)
Nuclear Information and Resource Service v. NRC, 918 F.2d 189, 195 (1990), *aff'd and rev'd on reh'g on other grounds,* 969 F.2d 1169 (D.C. Cir. 1992)
although the Commission retains broad authority to define standards and thresholds for determining when new information raises a material issue of a plant's conformity with the Atomic Energy Act, if such information is presented, it must provide a hearing upon request; LBP-11-22, 74 NRC 282 (2011)
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Nuclear Innovation North America LLC (South Texas Project, Units 3 and 4) CLI-11-06, 74 NRC 203, 208-09 (2011)
the adjudicatory record and board decision and any Commission appellate decisions become, in effect, part of the final environmental impact statement; LBP-11-38, 74 NRC 832 (2011)
Nuclear Innovation North America LLC (South Texas Project, Units 3 and 4), CLI-11-6, 74 NRC 203, 210-11 (2011)
Fukushima-related petitions for suspension of proceeding and rescission of regulations that make generic conclusions about environmental impacts of severe reactor and spent fuel pool accidents and

that preclude consideration of those issues in individual licensing proceedings are denied; LBP-11-39, 74 NRC 865 n.5 (2011)

Nuclear Innovation North America LLC (South Texas Project, Units 3 and 4), LBP-11-7, 73 NRC 254, 277-80 (2011)
new contentions may be admitted as long as they meet the timeliness criteria in 10 C.F.R. 2.309(f)(2) or the nontimely contention criteria in section 2.309(c)(1) and fulfill the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); LBP-11-39, 74 NRC 866 (2011)

Nuclear Innovation North America LLC (South Texas Project, Units 3 and 4), LBP-11-7, 73 NRC 254, 292-93 (2011)
at the contention admissibility stage, petitioners need not marshal their evidence as though preparing for an evidentiary hearing; LBP-11-21, 74 NRC 125 n.46 (2011)

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-11-21, 74 NRC 121 (2011)

Nuclear Management Co., LLC (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006)
if a contention as originally pleaded did not satisfy 10 C.F.R. 2.309(f)(1), a reply cannot remediate the deficiency by introducing, for the first time, references to a genuine dispute with the license application at issue; LBP-11-34, 74 NRC 694 n.62 (2011)
reply briefs must focus narrowly on the legal or factual arguments first presented in the original motion or petition or raised in the answers to it; LBP-11-34, 74 NRC 694 (2011)

Nuclear Management Co., LLC (Palisades Nuclear Plant), LBP-06-10, 63 NRC 314, 352 (2006)
petitioner's assertion that recriticality is demonstrated by the relative quantities of radionuclides released is not self-evident and is clearly of the class of statements that must be supported by expert opinion; LBP-11-23, 74 NRC 306 (2011)

Pa'ina Hawaii, LLC, CLI-10-18, 72 NRC 56, 74 (2010)
because NEPA is premised on a rule of reason, NRC need only consider reasonable alternatives to a proposed action; LBP-11-26, 74 NRC 545 (2011)
in assessing greenhouse gas impacts, NRC must devote its resources to taking a hard look at the issue; LBP-11-26, 74 NRC 545 (2011)
NRC must rigorously explore and objectively analyze environmental impacts, so that merely offering general statements about possible effects and some risk does not constitute a hard look absent a justification regarding why more definitive information could not be provided; LBP-11-26, 74 NRC 545 (2011); LBP-11-38, 74 NRC 830-31 (2011)

Pacific Gas & Electric Co. v. State Energy Resource Conservation & Development Commission, 461 U.S. 190, 209 (1983)
the 1959 amendments to the Atomic Energy Act were intended generally to increase the states' role in regulation of nuclear materials; CLI-11-12, 74 NRC 473-74 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-410, 5 NRC 1398, 1405 (1977)
expert witnesses must have the requisite education, training, skill, or experience in operation of a nuclear power plant or in probabilistic risk assessment to support a contention; LBP-11-35, 74 NRC 737 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-756, 18 NRC 1340, 1344 (1983)
proponents of motions to reopen the record bear a heavy burden; LBP-11-22, 74 NRC 270 (2011)
reopening motions must show that a different result would have been reached initially if the material had been considered; LBP-11-20, 74 NRC 84 n.108 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-775, 19 NRC 1361, 1365-66 (1984)
reopening motions must show that a different result would have been reached initially if the material had been considered; LBP-11-20, 74 NRC 84 n.108 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-775, 19 NRC 1361, 1366 (1984)
for a reopening motion to be timely presented, movant must show that the issue sought to be raised could not have been raised earlier; LBP-11-20, 74 NRC 85 n.110 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-880, 26 NRC 449, 460-61 (1987)

information may be unavoidably incomplete or unavailable, and under those circumstances, a final environmental impact statement can overcome this deficiency if it states that fact, explains how the missing information is relevant, sets forth the existing information, and evaluates the environmental impacts to the best of the agency's ability; CLI-11-11, 74 NRC 444 n.94 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-81-5, 13 NRC 361, 364-65 (1981)

in the post-TMI time frame, the Commission, although providing for some modified procedures, continued to apply existing rules for filing new contentions and motions to reopen the record; CLI-11-5, 74 NRC 170 (2011)

where initial decisions have been issued, the record should not be reopened to take evidence on some accident-related issue unless the party seeking reopening shows that there is significant new evidence, not included in the record, that materially affects the decision; CLI-11-5, 74 NRC 154 n.43 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-08-1, 67 NRC 1, 4-5 (2008)

within the geographic boundary of the Ninth Circuit, NRC may not categorically exclude NEPA terrorism contentions; CLI-11-11, 74 NRC 456 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 441-42 (2011)

the required level of demonstration by petitioners of cost-effectiveness of other severe accident mitigation alternatives is case and issue specific; LBP-11-35, 74 NRC 752 n.223 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 444 (2011)

NRC, as an independent regulatory agency, is not bound by those portions of Council on Environmental Quality NEPA regulations that have a substantive impact on the way in which the Commission performs its regulatory functions; LBP-11-35, 74 NRC 750 n.214 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 453 (2011)

NRC will evaluate all technical and policy issues related to the Fukushima event to identify potential research, generic issues, changes to the reactor oversight process, rulemakings, and adjustments to the regulatory framework that should be conducted by NRC; LBP-11-35, 74 NRC 761 n.241 (2011)

NRC's comprehensive evaluation of the Fukushima event includes consideration of those facilities that may be subject to seismic activity or tsunamis and of lessons learned that may apply to spent fuel pools that are part of the U.S. nuclear fleet; LBP-11-35, 74 NRC 761 n.241 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 457 (2011)

even assuming that petitioner intended to challenge the discussion of mitigation measures in applicant's environmental report, petitioner's unsupported statement falls short of the information required to show the existence of a genuine dispute; LBP-11-35, 74 NRC 758-59 n.237 (2011)

it is petitioner's responsibility to put others on notice as to the issues it seeks to litigate in the proceeding; LBP-11-35, 74 NRC 758-59 n.237 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-11-11, 74 NRC 427, 457-58 (2011)

NRC can and will make appropriate adjustments to regulatory requirements if necessary; LBP-11-35, 74 NRC 750 n.212 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-10-15, 72 NRC 257, 288 (2010)

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Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654 (2011)

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Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 665 (2011)

intervenor's challenge to NRC's compliance with NEPA in light of the NRC's Fukushima Task Force Report is premature; LBP-11-33, 74 NRC 681-82 (2011)

nothing in NEPA, which applies to agencies of the federal government, can be read to require an applicant to update its environmental report; LBP-11-34, 74 NRC 697 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 665-68 (2011)

petitioner's assertion that applicant's environmental report must be supplemented to take account of allegedly new and significant information is, as a procedural matter, unfounded and must be rejected; LBP-11-33, 74 NRC 681 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 665-70 (2011)

absent voluntary action by applicant to amend its environmental report, intervenor wishing to raise new or revised post-ER environmental concerns must await issuance of Staff's draft environmental impact statement; LBP-11-37, 74 NRC 784 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 671 (2011)

contention is inadmissible for failure to show that a genuine dispute exists with applicant on a material issue of law or fact; LBP-11-33, 74 NRC 683 (2011)

Fukushima-related contention based on a Staff Requirements Memorandum is inadmissible because the SRM does not define or impose any new requirements arising from the Fukushima accident and thus fails to establish a genuine dispute on a material issue of law or fact; LBP-11-37, 74 NRC 784 n.7 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-11-32, 74 NRC 654, 672-73 (2011)

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Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230 (2002)

bearing in mind the history of Commission actions following the TMI accident, the Commission looks to the more recent post-9/11 suspension-of-proceedings cases for the framework under which it considers Fukushima-related petitions; CLI-11-5, 74 NRC 157 (2011)

petitions to suspend multiple license renewal proceedings in view of an Inspector General's report on the agency's license renewal process were considered pursuant to the Commission's inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 158 (2011)

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Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 237 (2002)

although NRC rules require that motions be addressed to the presiding officer when a proceeding is pending, suspension motions are best addressed to the Commission; CLI-11-5, 74 NRC 158 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-02-23, 56 NRC 230, 239 (2002)

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if good cause for late filing is not shown, boards may still permit the filing, but petitioner or intervenor must make a strong showing on the other factors; LBP-11-32, 74 NRC 662 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 521 (2008)
applicant in a licensing proceeding must meet its burden of proof by a preponderance of the evidence; LBP-11-38, 74 NRC 829 n.77 (2011)

Pacific Gas and Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-08-26, 68 NRC 509, 526 (2008), *petition for review denied on other grounds, San Luis Obispo Mothers for Peace v. NRC,* 635 F.3d 1109 (9th Cir. 2011)
NRC Staff's final environmental impact statement and the adjudicatory record become part of the environmental record of the decision; CLI-11-6, 74 NRC 209 (2011); LBP-11-38, 74 NRC 832 (2011)

Pennsylvania Power & Light Co. (Susquehanna Steam Electric Station, Units 1 and 2), ALAB-693, 16 NRC 952, 955-56 (1982)
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Petition for Rulemaking to Amend 10 C.F.R. § 54.17(c), CLI-11-1, 73 NRC 1, 3 n.5 (2011)
the Commission may consider the rulemaking request of a nonparty as an exercise of its inherent supervisory powers over proceedings; CLI-11-5, 74 NRC 174 n.132 (2011)

Petition for Rulemaking to Amend 10 C.F.R. § 54.17(c), CLI-11-1, 73 NRC 1, 5-6 (2011)
the ordinary burden to parties pursuing litigation pending the rulemaking do not justify disrupting ongoing reviews; CLI-11-5, 74 NRC 175 (2011)

Philadelphia Electric Co. (Limerick Generating Station, Units 1 and 2), ALAB-819, 22 NRC 681, 705-07 (1985)
the adjudicatory record, board decision, and any Commission appellate decisions become, in effect, part of the final environmental impact statement; CLI-11-6, 74 NRC 209 (2011); LBP-11-38, 74 NRC 832 (2011)

Philadelphia Electric Co. (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20-21 (1974)
a contention is inadmissible if it fails to raise a material issue in dispute or raises an issue that is not susceptible to resolution; LBP-11-23, 74 NRC 345 (2011)
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Portland General Electric Co. (Trojan Nuclear Plant), ALAB-796, 21 NRC 4, 5 (1985)
adjudicatory proceedings terminate if intervenor either settles or abandons all of its contentions; LBP-11-22, 74 NRC 271 n.64 (2011)
if parties settle their dispute after a hearing, the board should dismiss the adjudication; LBP-11-22, 74 NRC 283 (2011)

Potential Implications of Chernobyl Accident for All NRC-Licensed Facilities, DD-87-21, 26 NRC 520 (1987)
post-accident request for suspension of proceeding was denied because no danger to public health and safety would result from mere continuation of the adjudicatory proceeding; CLI-11-5, 74 NRC 161 (2011)

Potomac Electric Power Co. (Douglas Point Nuclear Generating Station, Units 1 and 2), ALAB-218, 8 AEC 79, 85, 89 (1974)
no rule or regulation of the Commission, or any provision thereof, concerning the licensing of production and utilization facilities, source material, special nuclear material, or byproduct material is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; CLI-11-8, 74 NRC 229 (2011)

Powertech (USA), Inc. (Dewey-Burdock In Situ Uranium Recovery Facility), LBP-10-16, 72 NRC 361, 398 (2010)
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PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010)
intervention petitioner bears the burden of providing facts sufficient to establish its standing; LBP-11-21, 74 NRC 122 (2011)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139-40 (2010)
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PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591 (2011)
Fukushima-related contentions were dismissed as premature; LBP-11-39, 74 NRC 870 (2011)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591, 594 (2011), *motion to reinstate contention denied, Luminant Generation Co., LLC* (Comanche Peak Nuclear Power Plant, Units 3 and 4), LBP-11-36, 74 NRC 768 (2011)
admissibility of Fukushima-related contentions is determined; LBP-11-37, 74 NRC 779 n.3 (2011)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591, 599-602 (2011)
claims for relief from Fukushima-related events are premature; LBP-11-37, 74 NRC 783-84 (2011)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591, 601-02 (2011)
Fukushima-related contention was found inadmissible because it was premature; LBP-11-34, 74 NRC 699 (2011)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), LBP-11-27, 74 NRC 591, 602 n.54 (2011)
petitioner's attempt to tie NEPA environmental justice claim to Fukushima Task Force report is an improper effort to interpose concerns that could have been raised at the outset of the proceeding; LBP-11-37, 74 NRC 785 (2011)

PPL Susquehanna, LLC (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-4, 65 NRC 281, 303-04 (2007)
bare assertions in a contention run afoul of NRC's intention to focus the hearing process and provide notice to the other parties; LBP-11-21, 74 NRC 128 (2011)

PPL Susquehanna LLC (Susquehanna Steam Electric Station, Units 1 and 2), LBP-07-10, 66 NRC 1, 18, *aff'd on other grounds,* 66 NRC 101 (2007)
extended power uprate proceedings trigger application of the 50-mile proximity presumption, given that such license applications entail an obvious increase in the potential for offsite consequences; LBP-11-29, 74 NRC 619 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-00-24, 52 NRC 351, 353 (2000)
to the extent that the board's admissibility decisions regarding contentions are appealable at the end of the case, it makes sense for the board to consider all related arguments at the same time; CLI-11-6, 74 NRC 210 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-1, 53 NRC 1, 5 (2001)
a board's disputed legal ruling does not necessarily warrant immediate interlocutory review; CLI-11-6, 74 NRC 208 n.31 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-12, 53 NRC 459, 461 (2001)
review of a board's certified question that raises a significant and novel issue whose early resolution will materially advance the orderly disposition of the proceeding is granted; CLI-11-4, 74 NRC 2 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376 (2001)
petitions to suspend multiple license renewal proceedings in view of an Inspector General's report on the agency's license renewal process were considered pursuant to the Commission's inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 158 (2011)
requests to suspend or hold proceedings in abeyance following the September 11 terrorist attacks, as well as more recently, were considered pursuant to the Commission's inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 158 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 378 (2001)
post-9/11 suspension was neither necessary nor appropriate where shipments of spent fuel to the facility were at least 2 years down the road; CLI-11-5, 74 NRC 161 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 380 (2001)
for suspension of licensing proceedings, petitioners must show that continuation of proceedings, pending consideration of a rulemaking petition, would jeopardize the public health and safety, prove an obstacle to fair and efficient decisionmaking, or prevent appropriate implementation of any pertinent rule or policy changes that might emerge from NRC's continued evaluation of the impacts of the Fukushima accident; CLI-11-5, 74 NRC 158, 174 (2011); LBP-11-33, 74 NRC 679 n.5 (2011); LBP-11-34, 74 NRC 691 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 380-81 (2001)
petition for suspension of proceeding following 9/11 attack was denied because even if the licensing, construction, and shipping processes went forward as planned, no radiological materials would be present onsite for at least 2 years, so there was no immediate threat to public safety; CLI-11-5, 74 NRC 156 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 381 (2001)
NRC has a responsibility to go forward with other regulatory and enforcement activities even while the agency conducts its review of the Fukushima accident; CLI-11-5, 74 NRC 163-64 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 381-83 (2001)
petition for suspension of proceeding following 9/11 attack was denied because the interest in efficient adjudication would best be served if the proceeding went forward to resolve the numerous safety and environmental issues, many with no link to terrorism at issue; CLI-11-5, 74 NRC 157 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-01-26, 54 NRC 376, 383-84 (2001)
for licenses that NRC issues before completing its Fukushima review, any new Fukushima-driven requirements can be imposed later, if necessary to protect the public health and safety; CLI-11-5, 74 NRC 166 (2011)
petition for suspension of proceeding following 9/11 attack was denied because continuing the proceeding would not thwart regulatory review and suspending the proceeding was not necessary to guarantee that the full benefit of the agency's post-September 11 review would be realized at the proposed facility; CLI-11-5, 74 NRC 157 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-02-25, 56 NRC 340, 348 (2002)
NEPA has a dual purpose of ensuring that federal officials fully take into account the environmental consequences of a federal action before reaching major decisions and informing the public, Congress, and other agencies of those consequences; LBP-11-35, 74 NRC 766 n.13 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-04-22, 60 NRC 125, 139 (2004)
mere notice pleading is insufficient for contention admission, but petitioner does not have to prove its contentions at the admissibility stage; LBP-11-21, 74 NRC 125 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 348 (2005)
parties seeking to reopen a closed record to introduce a new issue must back their claim with enough evidence to withstand summary disposition when measured against their opponent's contravening evidence; LBP-11-35, 74 NRC 732 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 350 (2005)
a party seeking to reopen a closed record to raise a new matter faces an elevated burden to lay a proper foundation for its claim; LBP-11-20, 74 NRC 84 n.108 (2011)
no reopening of the evidentiary hearing will be required if the documents submitted in response to the motion demonstrate that there is no genuine unresolved issue of fact; LBP-11-35, 74 NRC 732 (2011)

the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; CLI-11-8, 74 NRC 222 (2011); LBP-11-20, 74 NRC 77 n.75 (2011); LBP-11-22, 74 NRC 269 (2011)
to justify granting a motion to reopen, the moving papers must be strong enough, in the light of any opposing filings, to avoid summary disposition; CLI-11-8, 74 NRC 222-23 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 350 n.18 (2005)
rationale for NRC's policy of generally disfavoring the filing of new contentions at the eleventh hour of an adjudication is based on the doctrine of finality, which states that at some point, an adjudicatory proceeding must come to an end; LBP-11-20, 74 NRC 77 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-19, 62 NRC 403, 406 (2005
requirements for reopening a closed record were applied to a proposed new contention submitted after the licensing board had conducted a lengthy evidentiary hearing and both the board and the Commission had issued their decisions on the merits; LBP-11-22, 74 NRC 270 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 21-22 (2006)
parties may move to reopen the case to allow litigation of a new version of a previously rejected contention, even if the licensing board has closed the evidentiary record and the Commission had issued its final decision authorizing Staff to issue the license for the proposed facility; LBP-11-22, 74 NRC 268 n.43 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 21-23 (2006)
requirements for reopening a closed record were applied to a proposed new contention submitted after the licensing board had conducted a lengthy evidentiary hearing and both the board and the Commission had issued their decisions on the merits; LBP-11-22, 74 NRC 270 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 24 (2006)
parties that have successfully intervened in a licensing proceeding may propose new contentions for litigation until the license is issued; LBP-11-22, 74 NRC 267-68 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 28 (2006)
allegedly new and significant information must paint a seriously different picture of the environmental landscape; LBP-11-35, 74 NRC 729 (2011)
however "significance" is defined, the Fukushima accident and its aftermath have (as any such severe accident would do) clearly painted a seriously different picture of the environmental landscape; LBP-11-23, 74 NRC 329 (2011)
the standard for when an issue is "significant" in the context of reopening a closed record is the same as the standard for when supplementation of an environmental impact statement is required, i.e., the new and significant information must paint a seriously different picture of the environmental landscape; LBP-11-23, 74 NRC 301 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 29 (2006)
environmental impact statements must be supplemented when there is new and significant information that will paint a seriously different picture of the environmental landscape; LBP-11-35, 74 NRC 751 n.217 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999)
failure to comply with any of the contention pleading requirements precludes admission of a contention; LBP-11-21, 74 NRC 125 (2011)
Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 179-80 (1998), *aff'd in part,* CLI-98-13, 48 NRC 26 (1998)
where a contention alleges a deficiency or error in the application, the deficiency or error must have some independent health and safety significance; LBP-11-23, 74 NRC 336 (2011)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-01-37, 54 NRC 476, 483-87 (2001), *aff'd,* CLI-02-25, 56 NRC 340, 357 (2002)
 the board applied the late-filing standards to a post-9/11 contention related to the risk of a terrorist attack on the ISFSI and found the contention timely but denied admission of both its safety and environmental aspects; CLI-11-5, 74 NRC 170 (2011)

Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-08-15, 68 NRC 1, 4 (2008)
 challenging features of the AP1000 standard design is a matter for a design certification rulemaking, not a combined license proceeding; CLI-11-8, 74 NRC 230 (2011)

Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 251 (2010)
 appellants seeking oral argument must show how oral argument will assist the Commission in reaching a decision; CLI-11-8, 74 NRC 220 (2011)

Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 278 n.205 (2010)
 although the entire record is considered on appeal, including pleadings that appellants ask to be adopted by reference, the Commission's decision responds to the arguments made explicitly in the appellate brief; CLI-11-8, 74 NRC 219 (2011)

Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 29, 46-48 (2010)
 absent error of law or abuse of discretion, the Commission defers to licensing board rulings on contention admissibility; CLI-11-9, 74 NRC 237 (2011)

Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 34 (2010), *affirming* LBP-09-10, 70 NRC 51, 87 (2009)
 Part 51, not NEPA, is the source of the legal requirements applicable to the applicant's environmental report; LBP-11-32, 74 NRC 666 (2011)

Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-10-2, 71 NRC 27, 46 (2010)
 NEPA only mandates examination of reasonably foreseeable environmental impacts of a proposed project; LBP-11-33, 74 NRC 683 (2011)
 the environmental impact statement's hard look must examine reasonably foreseeable environmental impacts emanating from the proposed action; LBP-11-39, 74 NRC 868 (2011)

Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-11-10, 74 NRC 251, 254-56 (2011)
 resolution of one contention where there are other contentions pending does not constitute disposition of a major segment of the case, because the outcome of a decision on the license renewal application is undetermined; CLI-11-14, 74 NRC 811 (2011)

Progress Energy Florida, Inc. (Levy County Nuclear Power Plant, Units 1 and 2), CLI-11-10, 74 NRC 251, 255 (2011)
 parties may file a petition for review of licensing board full or partial initial decisions, both of which are considered to be final; CLI-11-14, 74 NRC 810 (2011)

Public Citizen v. NRC, 573 F.3d 916, 926 (9th Cir. 2009)
 protecting against the threat of air attacks is not within licensees' responsibilities because a private security force cannot reasonably be expected to defend against such attacks and adequate protection is ensured through the actions of other federal agencies with defense capabilities and air-safety expertise; CLI-11-4, 74 NRC 6 n.26 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-471, 7 NRC 477, 489 n.8 (1978), *rev'd on other grounds,* CLI-97-15, 46 NRC 294 (1997)
 applicant may bear the burden of proof on contentions asserting deficiencies in its environmental report and where the applicant becomes a proponent of a particular challenged position set forth in the environmental impact statement; LBP-11-38, 74 NRC 830 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-731, 17 NRC 1073, 1074-75 (1983)
 a board order is appealable when it disposes of a major segment of the case or terminates a party's right to participate; CLI-11-10, 74 NRC 255 (2011)

the basis for allowing immediate appellate review of partial initial decisions rests on prior appeal board decisions permitting review of a licensing board ruling that disposes of a major segment of the case or terminates a party's right to participate; CLI-11-14, 74 NRC 810-11 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-886, 27 NRC 74, 78 (1988)

when a motion to reopen is untimely, the section 2.326(a)(1) "exceptionally grave" test supplants the section 2.326(a)(2) "significant safety or environmental issue" test; CLI-11-8, 74 NRC 225 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-899, 28 NRC 93, 97 & n.11 (1988), *aff'd in part and remanded in part on other matters, Massachusetts v. NRC,* 924 F.2d 311 (D.C. Cir.) (1991), *cert. denied,* 502 U.S. 899 (1991)

intervenor is not free to change the focus of its admitted contention, at will, as the litigation progresses; LBP-11-38, 74 NRC 833 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-915, 29 NRC 427, 432 (1989)

licensing boards are discouraged from adding material to bolster a petitioner's or party's arguments or pleadings; CLI-11-11, 74 NRC 447 n.113 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-940, 32 NRC 225, 243 (1990)

to demonstrate a significant safety issue, petitioners must establish either that uncorrected errors endanger safe plant operation or that there has been a breakdown of the quality assurance program sufficient to raise legitimate doubt as to the plant's capability of being operated safely; LBP-11-35, 74 NRC 730, 750-51 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 428 (1990)

lack of clarity about which electrical cables might be subject to any saltwater environment, however high or low the concentration, and about the effects of and efforts to address this, is a level of concern sufficient to warrant further inquiry and exploration; LBP-11-20, 74 NRC 113-14 (2011)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-90-10, 32 NRC 218, 221 (1990)

the burden of satisfying the reopening requirements is a heavy one, and proponents must meet all requirements; LBP-11-20, 74 NRC 81 (2011)

Public Service Co. of Oklahoma (Black Fox Station, Units 1 and 2), ALAB-573, 10 NRC 775, 787 (1979)

conclusory language is not sufficient to support an appeal; CLI-11-8, 74 NRC 225 (2011)

Riverkeeper, Inc. v. Collins, 359 F.3d 156, 158 (2d Cir. 2004)

for contentions that fall within the facility's current licensing basis, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 134 n.115 (2011)

Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989)

NEPA has a dual purpose of ensuring that federal officials fully take into account the environmental consequences of a federal action before reaching major decisions and informing the public, Congress, and other agencies of those consequences; LBP-11-35, 74 NRC 766 n.13 (2011)

NEPA requires that agencies consider environmental impacts before decisions are made to ensure that important effects will not be overlooked or underestimated only to be discovered after resources have been committed; LBP-11-23, 74 NRC 351 (2011)

Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349-50 (1989)

although NEPA does not mandate particular results, its purposes include ensuring that NRC, in reaching its decision, will have available, and will carefully consider, detailed information concerning significant environmental impacts and will make available the relevant information to the larger audience that may also play a role in both the decisionmaking process and the implementation of that decision; LBP-11-23, 74 NRC 330 (2011)

without substantive, comparative environmental impact information regarding other possible courses of action, the ability of an environmental impact statement to inform agency deliberation and facilitate public involvement would be greatly degraded; LBP-11-23, 74 NRC 331 (2011)

Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989)
NEPA does not mandate particular decisions that an agency must reach, only the process the agency must follow while reaching decisions; LBP-11-17, 74 NRC 27 n.77 (2011)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350-51 (1989)
NEPA imposes procedural obligations on federal agencies proposing to take actions significantly affecting the quality of the human environment; LBP-11-39, 74 NRC 867-68 (2011)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989)
NEPA prohibits uninformed agency action; LBP-11-17, 74 NRC 27 (2011)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352 (1989)
sufficiency of NRC's hard look at the benefits of severe accident mitigation alternatives in comparison to their costs is subject to litigation in a license renewal proceeding; LBP-11-17, 74 NRC 21 (2011)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352-53 (1989)
to the extent a board would have NRC Staff elaborate on its analysis, the board's decision does not appear patently unreasonable; CLI-11-14, 74 NRC 813 (2011)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 353 (1989)
for a mitigation analysis, NEPA demands no fully developed plan or detailed examination of specific measures that will be employed to mitigate adverse environmental effects; LBP-11-23, 74 NRC 330 (2011)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 353 n.16 (1989)
because NEPA imposes no substantive requirement that mitigation measures actually be taken, it should not be read to require agencies to obtain an assurance that third parties will implement particular measures; CLI-11-14, 74 NRC 813 n.68 (2011)
Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 354-55, 359 (1989)
NEPA does not require a worst-case analysis; LBP-11-38, 74 NRC 831 (2011)
Robertson v. Methow Valley Citizens Counsel, 490 U.S. 332, 354-56 (1989)
the severe accident mitigation alternatives analysis is neither a worst-case nor a best-case impacts analysis; LBP-11-18, 74 NRC 37-38 (2011)
Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 247-48 (1993), *review declined,* CLI-94-2, 39 NRC 91 (1994)
petitions that lack alleged facts or expert opinions to support the contention are inadmissible; LBP-11-29, 74 NRC 621 (2011)
San Luis Obispo Mothers for Peace v. NRC, 449 F.3d 1016 (9th Cir. 2006)
impacts of attacks on reactors are cognizable under NEPA, an evaluation of mitigation measures is required by NEPA and NRC regulations, and an evaluation of measures to mitigate attacks on nuclear reactors cannot be found in the license renewal generic environmental impact statement; CLI-11-11, 74 NRC 454 (2011)
San Luis Obispo Mothers for Peace v. NRC, 751 F.2d 1287, 1316-17 (D.C. Cir. 1984), *vacated in part,* 760 F.2d 1320 (D.C. Cir. 1985) (en banc), *and aff'd,* 789 F.2d 26 (D.C. Cir. 1985) (en banc), *cert. denied,* 479 U.S. 923 (1986)
parties were not permitted to raise issues or there was no opportunity for hearing on a particular issue; LBP-11-20, 74 NRC 91 n.3 (2011)
Save the Bay, Inc. v. U.S. Corps of Engineers, 610 F.2d 322, 326 (5th Cir. 1980)
NEPA applies to agencies of the federal government, not to private parties such as applicants for NRC licenses; LBP-11-32, 74 NRC 666 (2011)
Scientists' Institute for Public Information, Inc. v. AEC, 481 F.2d 1079, 1092 (D.C. Cir. 1973)
NEPA only requires reasonable forecasting; LBP-11-38, 74 NRC 831 (2011)
Securities and Exchange Commission v. Chenery Corp., 318 U.S. 80 (1943)
a court cannot defer to interpretive proposals offered by counsel at oral argument and affirm on the basis of that reading when the statute does not plainly compel the reading being proposed; CLI-11-12, 74 NRC 470 (2011)
Seminole Nation v. United States, 316 U.S. 286, 296-97 (1942)
the federal government bears a trust responsibility to Native American tribes, and the NRC, as a federal agency, owes a fiduciary duty to tribes and their members; LBP-11-30, 74 NRC 632 (2011)

Sequoyah Fuels Corp., CLI-94-4, 39 NRC 187, 189 n.1 (1994)
replies may not contain new information that was not raised in either the petition or answers, but arguments that respond to the petition or answers are not precluded, whether they are offered in rebuttal or in support; CLI-11-14, 74 NRC 809 (2011)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-11, 40 NRC 55, 59 n.2 (1994)
although the Atomic Safety and Licensing Appeal Panel is no longer in existence, the decisions of its appeals boards continue to be binding to the degree they concern a regulation or regulatory matter that has not been revised or otherwise materially altered; LBP-11-34, 74 NRC 696 n.70 (2011)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-11, 40 NRC 55, 61-62 (1994)
labor and expense of pursuing litigation that petitioner sought to curtail do not constitute irreparable harm; CLI-11-10, 74 NRC 256 n.24 (2011)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-11, 40 NRC 55, 62-63 (1994)
expansion of issues for litigation that results from a board action does not have a pervasive and unusual effect on the litigation; CLI-11-10, 74 NRC 256 n.24 (2011)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 63 (2009)
licensing boards lack authority to direct the Staff's nonadjudicatory actions; CLI-11-14, 74 NRC 813 n.70 (2011)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 65 (2009)
if intervenors file a new or amended contention, with supporting materials, within 60 days after pertinent information first becomes available, then the contention will be deemed timely filed and intervenors will not have to satisfy the late-filing requirements of 10 C.F.R. 2.309(c) or the requirements for reopening the record; LBP-11-22, 74 NRC 281 (2011)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 65-66 n.48 (2009)
reopening the record is an extraordinary action and proponents bear a heavy burden; LBP-11-22, 74 NRC 269-70 (2011)

Shaw AREVA MOX Services, LLC (Mixed Oxide Fuel Fabrication Facility), CLI-09-2, 69 NRC 55, 66 (2009)
adjudications must have a defined endpoint; LBP-11-22, 74 NRC 273 (2011)

Shieldalloy Metallurgical Corp. v. NRC, 624 F.3d 489, 492-93 (D.C. Cir. 2010)
federal agencies would be acting arbitrarily and capriciously if they did not look at relevant data and sufficiently explain a rational nexus between the facts found in their review and the choice they make as a result of that review; LBP-11-17, 74 NRC 22-23 (2011)

Shieldalloy Metallurgical Corp. v. NRC, 624 F.3d 489, 494 (D.C. Cir. 2010)
state requests for limited agreements will be considered by NRC only if the state can identify discrete categories of material or classes of licensed activity that can be reserved to NRC authority without undue confusion to the regulated community or burden to NRC resources and can be applied logically and consistently to existing and future licensees over time; CLI-11-12, 74 NRC 469-70 (2011)

Shieldalloy Metallurgical Corp. v. NRC, 624 F.3d 489, 495 (D.C. Cir. 2010)
NRC has discretion to negotiate the terms of an agreement with a state requesting authority over nuclear materials; CLI-11-12, 74 NRC 474 (2011)

Shieldalloy Metallurgical Corp. (Decommissioning of the Newfield, New Jersey Facility), CLI-09-1, 69 NRC 1, 5 (2009)
unrestricted release is the preferable method for terminating radioactive materials licenses; CLI-11-12, 74 NRC 491 (2011)

Sierra Club v. Environmental Protection Agency, 995 F.2d 1478, 1485 (9th Cir. 1993)
NEPA applies to agencies of the federal government, not to private parties such as applicants for NRC licenses; LBP-11-32, 74 NRC 666 (2011)

Sierra Club v. Froehlke, 816 F.2d 205, 210 (5th Cir. 1987)
agency decisions regarding the need to supplement an environmental impact statement based on new and significant information are subject to the rule of reason; LBP-11-26, 74 NRC 536 n.13 (2011)

to merit additional NRC Staff environmental review, new information must present a seriously different picture of the environmental impact of the proposed project than what was previously envisioned; CLI-11-5, 74 NRC 168 (2011)

Sierra Club v. Marsh, 976 F.2d 763 (1st Cir. 1992)

the environmental impact statement's hard look must examine reasonably foreseeable environmental impacts emanating from the proposed action; LBP-11-39, 74 NRC 868 (2011)

South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 7 (2010)

petitioner may correct or supplement its showing on standing; LBP-11-21, 74 NRC 123 (2011)

South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), LBP-10-6, 71 NRC 350, 357-58, 385-86 (2010), *aff'd,* CLI-10-21, 72 NRC 197 (2010)

the licensing board terminated the proceeding on remand from the Commission when it found that petitioners had proffered no admissible contentions; LBP-11-22, 74 NRC 283 (2011)

South Texas Project Nuclear Operating Co. (South Texas Project, Units 3 and 4), CLI-10-16, 71 NRC 486, 489-90 (2010)

piecemeal appeals during ongoing licensing board proceedings are generally disfavored; CLI-11-6, 74 NRC 210 (2011)

South Texas Project Nuclear Operating Co. (South Texas Project, Units 3 and 4), LBP-10-2, 71 NRC 190, 209-10 (2010)

standards for admission of new contentions are reviewed; LBP-11-25, 74 NRC 389 (2011)

South Texas Project Nuclear Operating Co. (South Texas Project, Units 3 and 4), LBP-10-14, 72 NRC 101, 107-09 (2010)

new contentions may be admitted as long as they meet the timeliness criteria in 10 C.F.R. 2.309(f)(2) or the nontimely contention criteria in section 2.309(c)(1) and fulfill the contention admissibility requirements of 10 C.F.R. § 2.309(f)(1); LBP-11-39, 74 NRC 866 (2011)

standards for admission of new contentions are reviewed; LBP-11-25, 74 NRC 389 (2011)

Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), CLI-07-17, 65 NRC 392, 394 (2007)

completion of NRC Staff's final environmental review document always must precede the conduct of hearings on environmental issues; LBP-11-30, 74 NRC 631 (2011)

Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), CLI-07-17, 65 NRC 392, 395 (2007)

boards may not commence a hearing on environmental issues before the final environmental impact statement is issued, and may only commence a hearing with respect to safety issues prior to issuance of the final safety evaluation report if it will expedite the proceeding without adversely impacting the Staff's ability to complete its evaluations in a timely manner; LBP-11-22, 74 NRC 272 n.69 (2011)

Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), CLI-10-5, 71 NRC 90, 100 (2010)

the scope of a contention is limited to the issues of law and fact pleaded with particularity in the contention and any factual and legal material in support thereof; LBP-11-38, 74 NRC 833 (2011)

Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), LBP-09-7, 69 NRC 613, 631-32 (2009)

environmental impact statements are subject to a rule of reason that grants the agency a degree of deference exempting it from examining impacts that it in good faith deems to be remote and speculative or inconsequentially small; LBP-11-39, 74 NRC 868 (2011)

Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), LBP-09-19, 70 NRC 433, 503-04 (2009)

there is no agency requirement that applicant submit a redress plan relative to preconstruction activities or, absent state or local requirements, take any remediation action regarding preconstruction activities if it decides not to complete the project or is denied agency authorization to construct and operate the facility; LBP-11-26, 74 NRC 539 (2011)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-09-3, 69 NRC 139, 154 (2009)

petitions that lack alleged facts or expert opinions to support the contention are inadmissible; LBP-11-29, 74 NRC 621 (2011)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-8, 71 NRC 433 (2010)
the low-level radioactive waste plan outlined in applicant's final safety analysis report complies with 10 C.F.R. 52.97(a)(3); CLI-11-10, 74 NRC 256-57 (2011)
Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-8, 71 NRC 433, 447 (2010)
the licensing board chose to terminate the adjudications when faced with no pending contentions, but did not state that it was compelled to do so by Commission precedent or agency regulation; LBP-11-22, 74 NRC 285 (2011)
Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-21, 72 NRC 616, 630, 631-32, 644-47, 648-58 (2010)
the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel appointed a new board (consisting of the same members as the old board), which held that the new contention submitted after termination of the proceeding did not meet the reopening standard, deemed that contention untimely and inadmissible, and again terminated the adjudicatory proceeding; LBP-11-22, 74 NRC 285 n.136 (2011)
Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), LBP-10-21, 72 NRC 616, 631-32, 644-47 (2010)
a newly constituted board applied the reopening standard to new contentions filed after the prior proceeding was terminated for want of pending or admitted contentions; LBP-11-22, 74 NRC 269 n.50 (2011)
Statement of Policy on Adjudicatory Proceedings, CLI-98-12, 48 NRC 18 (1998)
NRC has a responsibility to go forward with other regulatory and enforcement activities even while the agency conducts its review of the Fukushima accident; CLI-11-5, 74 NRC 163-64 (2011)
Statement of Policy on Conduct of Licensing Proceedings, CLI-81-8, 13 NRC 452, 454 (1981)
parties' other professional obligations do not relieve them of their obligations to meet regulatory deadlines; LBP-11-34, 74 NRC 693 n.52 (2011)
Statement of Policy: Further Commission Guidance for Power Reactor Operating Licenses, CLI-80-42, 12 NRC 654, 661 (1980)
in the post-TMI time frame, the Commission, although providing for some modified procedures, continued to apply the existing rules for filing new contentions and motions to reopen the record; CLI-11-5, 74 NRC 170 (2011)
System Energy Resources, Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-07-10, 65 NRC 144, 146 (2007)
within the geographic boundary of the Ninth Circuit, NRC may not exclude NEPA terrorism contentions categorically; CLI-11-11, 74 NRC 456 (2011)
Tennessee Valley Authority (Bellefonte Nuclear Plants, Units 1 and 2), CLI-10-26, 73 NRC 474, 476 (2010)
parties' other professional obligations do not relieve them of their obligations to meet regulatory deadlines; LBP-11-34, 74 NRC 693 n.52 (2011)
Tennessee Valley Authority (Bellefonte Nuclear Power Plant, Units 3 and 4), LBP-11-37, 74 NRC 774 (2011)
Fukushima-related contentions were dismissed as premature; LBP-11-39, 74 NRC 870 (2011)
Tennessee Valley Authority (Hartsville Nuclear Plant, Units 1A, 2A, 1B, and 2B), ALAB-380, 5 NRC 572 (1977)
licensing boards may raise significant environmental and safety issues sua sponte; LBP-11-23, 74 NRC 367 (2011)
Tennessee Valley Authority (Sequoyah Nuclear Plant, Units 1 and 2; Watts Bar Nuclear Plant, Unit 1), LBP-02-14, 56 NRC 15, 23 (2002)
statutes articulating the relevant zone of interests in NRC proceedings are the Atomic Energy Act and the National Environmental Policy Act; LBP-11-29, 74 NRC 616 n.10 (2011)
Tennessee Valley Authority (Watts Bar Nuclear Plant, Unit 2), CLI-10-12, 71 NRC 319, 322-23 (2010)
in weighing the timeliness factors for motions to reopen, greatest weight is accorded to good cause for failure to file on time; CLI-11-8, 74 NRC 227 (2011)

Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 1), ALAB-868, 25 NRC 912, 924 n.42 (1987)
an issue on appeal is not properly briefed by incorporating by reference papers filed with the licensing board; CLI-11-8, 74 NRC 219 n.13 (2011)
Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-2, 37 NRC 55, 59 n.4 (1993)
appellants seeking oral argument must show how oral argument will assist the Commission in reaching a decision; CLI-11-8, 74 NRC 220 (2011)
Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-11, 37 NRC 251, 255 (1993)
petitioner's failure to specifically address the section 2.309(c)(1) factors in its motion to reopen is a potentially fatal omission; CLI-11-8, 74 NRC 227 n.59 (2011)
Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992)
petitions that lack alleged facts or expert opinions to support the contention are inadmissible; LBP-11-29, 74 NRC 621 (2011)
Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-1, 35 NRC 1, 6 n.5 (1992)
despite rulings dismissing a contention as moot and declining to admit two other contentions, the licensing proceeding remains in existence; LBP-11-22, 74 NRC 267 (2011)
Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-12, 36 NRC 62, 68-69 (1992)
appellants seeking oral argument must show how oral argument will assist the Commission in reaching a decision; CLI-11-8, 74 NRC 220 (2011)
Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Units 1 and 2), CLI-92-12, 36 NRC 62, 69-73 (1992)
petitioner must act reasonably and promptly after learning of the new information on which its motion to reopen is based; LBP-11-23, 74 NRC 328 (2011)
Toledo Edison Co. (Davis-Besse Nuclear Power Station), ALAB-300, 2 NRC 752, 758 (1975)
board orders are appealable when they dispose of a major segment of the case or terminate a party's right to participate; CLI-11-10, 74 NRC 255 (2011)
Town of Winthrop v. Federal Aviation Administration, 535 F.3d 1, 11-13 (1st Cir. 2008)
for a mitigation analysis, NEPA demands no fully developed plan or detailed examination of specific measures that will be employed to mitigate adverse environmental effects; LBP-11-23, 74 NRC 330 (2011)
U.S. Department of Energy (High-Level Waste Repository), CLI-08-12, 67 NRC 386, 393 (2008)
filings not otherwise authorized by NRC rules are allowed only where necessity or fairness dictates; CLI-11-14, 74 NRC 807 (2011)
U.S. Department of Energy (High-Level Waste Repository), CLI-10-13, 71 NRC 387, 388 n.6 (2010)
the Commission disfavors requests to invoke its inherent supervisory authority over adjudications; CLI-11-13, 74 NRC 637 n.11 (2011)
U.S. Department of Energy (High-Level Waste Repository), LBP-08-10, 67 NRC 450, 455 (2008)
rarely should the basis for a contention require more than a sentence or two; LBP-11-34, 74 NRC 699 n.89 (2011)
U.S. Department of Energy (High-Level Waste Repository), LBP-09-6, 69 NRC 367, 416 (2009)
requiring petitioners to proffer additional and conclusive support for the effect of their proposed contention would improperly require boards to adjudicate the merits of contentions before admitting them; LBP-11-21, 74 NRC 125 n.46 (2011); LBP-11-25, 74 NRC 397 n.111 (2011)
U.S. Enrichment Corp. (Paducah, Kentucky Gaseous Diffusion Plant), CLI-01-23, 54 NRC 267, 272 (2001)
in NRC proceedings, pro se litigants are generally not held to the same high standards of pleading and practice as parties with counsel; LBP-11-20, 74 NRC 96 n.26 (2011); LBP-11-23, 74 NRC 333 n.23 (2011)
U.S. Postal Service v. Gregory, 534 U.S. 1, 10 (2001)
Staff's deference to the expertise of other federal and state agencies to set and monitor the financial soundness of institutions issuing letters of credit is reasonable; CLI-11-4, 74 NRC 6 n.27 (2011)

Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141 (2011)
new contentions on the safety and environmental implications of the NRC Task Force Report on the Fukushima Dai-ichi accident are premature and must be denied on that basis without regard to any other considerations; LBP-11-27, 74 NRC 595 (2011); LBP-11-37, 74 NRC 783 (2011)
the Commission declined to suspend adjudications or any final licensing decisions because of the Fukushima accident, finding no imminent risk to public health and safety or to common defense and security; CLI-11-8, 74 NRC 232 (2011); CLI-11-10, 74 NRC 257 n.28 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 145-46 (2011)
requests to suspend ongoing adjudicatory and licensing activities pending full consideration of the safety and environmental implications of the Fukushima accident are denied; LBP-11-34, 74 NRC 689 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 146 (2011)
NRC understanding of the details of the failure modes at the Fukushima Dai-ichi site continues to evolve and NRC continues to learn more about the extent of the damage at the site; LBP-11-28, 74 NRC 607 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 147 (2011)
the Fukushima Task Force was to review NRC processes and regulations to determine, among other things, whether the agency should make additional improvements to its regulatory system; LBP-11-27, 74 NRC 594 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 147-48 n.6 (2011)
any changes adopted as a result of the Fukushima accident or the Task Force Report can and will be implemented through the normal regulatory process; LBP-11-28, 74 NRC 607 (2011); LBP-11-32, 74 NRC 659 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 147-49 (2011)
NRC continues to consider the nuclear events in Japan, and the agency is in the process of implementing and prioritizing actions to be taken in response to the Fukushima accident; CLI-11-14, 74 NRC 812 n.66 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 152-56 (2011)
Commission responses to requests for suspension of reactor licensing reviews and associated adjudications in the wake of the Three Mile Island accident and 9/11 terrorist attacks are discussed; LBP-11-37, 74 NRC 784 n.8 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 161 (2011)
lack of a specific link between the relief requested and the particulars of the individual applications makes it difficult to conclude that moving forward with any individual licensing decision or proceeding will have a negative impact on public health and safety; LBP-11-35, 74 NRC 716 n.63 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 163 (2011)
for pending license renewal applications, where the period of extended operation will not begin for at least a year, there is no imminent threat to public health and safety that requires suspension of licensing proceedings or decisions; LBP-11-35, 74 NRC 710 (2011)
NRC has the authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation; CLI-11-6, 74 NRC 211 (2011); CLI-11-8, 74 NRC 232 (2011); CLI-11-10, 74 NRC 257 n.28 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 163-64 (2011)
it is unnecessary to cease current licensing activities because NRC has authority to, and will, address Fukushima-related matters with future rulemaking and requirements to be applied to then-operating plants if the information it obtains so warrants; LBP-11-35, 74 NRC 745 n.200 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 164 (2011)
NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its current licensing basis, which can be adjusted by future Commission order or by modification to the facility's operating license outside the renewal proceeding; CLI-11-11, 74 NRC 458 (2011); LBP-11-35, 74 NRC 713 (2011)
the Commission does not believe that an imminent risk will exist during the time period needed to apply any necessary Fukushima-related changes to operating plants, whether a license renewal application is pending or not; LBP-11-35, 74 NRC 749 n.212 (2011)

Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 164-65 (2011)
speculatory support for petitioners' request that licensing decisions be put on hold until NRC has completed its Fukushima studies and developed appropriate information is insufficient; LBP-11-35, 74 NRC 749 n.211 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 166 (2011)
for licenses that NRC issues before completing its Fukushima review, any new Fukushima-driven requirements can be imposed later, if necessary to protect the public health and safety; LBP-11-35, 74 NRC 749 n.212 (2011)
moving forward with decisions and proceedings will have no effect on NRC's ability to implement necessary rule or policy changes that might come out of its review of the Fukushima accident; LBP-11-32, 74 NRC 659 (2011); LBP-11-35, 74 NRC 710-11 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 166-67 (2011)
although the Task Force Report on the Fukushima accident did not justify initiating a generic NEPA review, the Commission acknowledged that new and significant information may come to light that must be considered in individual reactor licensing proceedings; LBP-11-32, 74 NRC 664 (2011)
NRC need not conduct a separate generic NEPA analysis regarding whether the Fukushima events constitute new and significant information under NEPA that must be analyzed as a part of the environmental review for new reactor and license renewal decisions; LBP-11-32, 74 NRC 659 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 167 (2011)
because the full implications of the Fukushima events for U.S. facilities are unknown, any generic NEPA duty is premature; LBP-11-27, 74 NRC 600-01 (2011); LBP-11-28, 74 NRC 608 (2011); LBP-11-32, 74 NRC 659 (2011); LBP-11-33, 74 NRC 682 (2011)
if new and significant Fukushima-related information comes to light that requires consideration as part of the ongoing preparation of application-specific NEPA documents, the agency will assess the significance of that information, as appropriate; LBP-11-33, 74 NRC 682 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 167, 170-71 (2011)
the Commission declined to provide guidance as to when a Fukushima contention, challenging an individual environmental impact statement, would be mature; LBP-11-32, 74 NRC 669 n.34 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 167-68 (2011)
new information requiring NRC Staff to prepare supplemental environmental review documents must present a seriously different picture of the environmental impact of the proposed project than what was previously envisioned; LBP-11-27, 74 NRC 601 (2011); LBP-11-28, 74 NRC 609 (2011); LBP-11-39, 74 NRC 868 (2011)
the measure of "significance" is whether the new information presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned; LBP-11-35, 74 NRC 751 n.218 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 169 (2011)
NRC regulations and case law already provide clear and uniform standards to determine the timeliness of motions to add new contentions on the Fukushima accident; LBP-11-32, 74 NRC 660 (2011)
NRC rules deliberately place a heavy burden on proponents of contentions, who must challenge aspects of license applications with specificity, backed up with substantive technical support, mere conclusions or speculation being insufficient; LBP-11-35, 74 NRC 718 n.70, 751 n.219 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 170 (2011)
boards are encouraged to seek guidance from the Commission with regard to new contentions based on the Fukushima accident; LBP-11-32, 74 NRC 671 (2011)
individual reactor adjudications should go forward, including those that may involve proposed contentions based on issues implicated by the Fukushima events; LBP-11-32, 74 NRC 660 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 171 (2011)
in the future the Commission might provide relevant guidance regarding the proper time frame for adjudicating Fukushima-related contentions; LBP-11-39, 74 NRC 871 n.42 (2011)
Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 174 (2011)
for suspension of licensing proceedings, petitioners must show that continuation of proceedings, pending consideration of a rulemaking petition, would jeopardize the public health and safety, prove an obstacle to fair and efficient decisionmaking, or prevent appropriate implementation of any

pertinent rule or policy changes that might emerge from NRC's continued evaluation of the impacts of the Fukushima accident; LBP-11-33, 74 NRC 679 n.5 (2011); LBP-11-34, 74 NRC 691 (2011)

Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 174-75 (2011)
depending on the timing and outcome of the NRC Staff's resolution of Fukushima-related rulemaking petitions, the Staff itself could seek Commission permission to suspend one or more of the generic determinations in the license renewal environmental rules and include a new analysis in pending, plant-specific environmental impact statements; LBP-11-35, 74 NRC 761 n.241 (2011)
spent fuel storage pool matters will be addressed, if studies of implications from Fukushima warrant, through more generic regulatory reform; LBP-11-35, 74 NRC 717 (2011)

Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 175-76 (2011)
Fukushima-related contentions were denied as premature; LBP-11-36, 74 NRC 770 (2011)
Fukushima-related petitions for suspension of proceeding and rescission of regulations that make generic conclusions about environmental impacts of severe reactor and spent fuel pool accidents and that preclude consideration of those issues in individual licensing proceedings are denied; LBP-11-33, 74 NRC 678 (2011); LBP-11-39, 74 NRC 865 n.5 (2011)

Union of Concerned Scientists v. NRC, 735 F.2d 1437, 1443 (D.C. Cir. 1984)
Atomic Energy Act § 189a has been interpreted to require that hearings must encompass all material factors bearing on the licensing decision raised by the requester; LBP-11-22, 74 NRC 269, 270, 275 (2011)

Union of Concerned Scientists v. NRC, 735 F.2d 1437, 1444-45 (D.C. Cir. 1984)
parties were not permitted to raise issues or there was no opportunity for hearing on a particular issue; LBP-11-20, 74 NRC 91 n.3 (2011)

Union of Concerned Scientists v. NRC, 735 F.2d 1437, 1447 (D.C. Cir. 1984)
the Atomic Energy Act does not grant NRC the discretion to eliminate from the hearing, material issues in its licensing decision; LBP-11-22, 74 NRC 282 (2011)

Union of Concerned Scientists v. NRC, 920 F.2d 50, 55 n.4 (D.C. Cir. 1990)
for contentions that fall within the facility's current licensing basis, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 134 n.115 (2011)

Union of Concerned Scientists v. NRC, 920 F.2d 50, 55-56 (D.C. Cir. 1990)
NRC may impose reasonable requirements on new contentions when those requirements are related to legitimate agency goals such as avoiding needless duplication and delay; LBP-11-22, 74 NRC 282 (2011)

United States v. Chemical Foundation, Inc., 272 U.S. 1, 14-15 (1926)
a presumption of regularity attaches to the actions of government agencies; CLI-11-4, 74 NRC 6 n.27 (2011)

United States v. Mead Corp., 533 U.S. 218 (2001)
a court cannot defer to interpretive proposals offered by counsel at oral argument and affirm on the basis of that reading when the statute does not plainly compel the reading being proposed; CLI-11-12, 74 NRC 470-71 (2011)

United States v. Mitchell, 463 U.S. 206, 224 (1983)
the federal government bears a trust responsibility to Native American tribes, and the NRC, as a federal agency, owes a fiduciary duty to tribes and their members; LBP-11-30, 74 NRC 632 (2011)

United States v. Monzel, Nos. 11-3008, 11-3009, 2011 WL 1466365 at *2 (D.C. Cir. Apr. 19, 2011)
"shall" is a term of legal significance, in that it is mandatory or imperative, not merely precatory; CLI-11-12, 74 NRC 472 n.36 (2011)

USEC Inc. (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006)
contention admissibility standards are deliberately strict, and any contention that does not satisfy NRC requirements will be rejected; CLI-11-8, 74 NRC 228 (2011)

USEC Inc. (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 439 (2006)
replies may not contain new information that was not raised in either the petition or answers, but arguments that respond to the petition or answers are not precluded, whether they are offered in rebuttal or in support; CLI-11-14, 74 NRC 809 n.45 (2011)

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USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 457 (2006)
it is not up to boards to search through pleadings or other materials to uncover arguments and support never advanced by intervenors; LBP-11-34, 74 NRC 697 (2011)
USEC Inc. (American Centrifuge Plant), LBP-07-6, 65 NRC 429, 473 (2007)
previously recognized availability policy for domestic enrichment services supports a NEPA finding of a need for the construction and operation of uranium enrichment facilities; LBP-11-26, 74 NRC 533 (2011)
Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 548 (1978)
NEPA does not mandate how an agency must fulfill its obligations under the statute; LBP-11-23, 74 NRC 331 (2011)
Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 551, 553 (1978)
the impact of Fukushima-related issues on pending applications should be analyzed at a time and in a manner that fully takes into account not every alternative device and thought conceivable by the mind of man, but every significant aspect of the environmental impact of the sought license renewal; LBP-11-35, 74 NRC 766 n.13 (2011)
Vermont Yankee Nuclear Power Corp. v. NRC, 435 U.S. 519, 554 (1978)
lack of clarity about which electrical cables might be subject to any saltwater environment, however high or low the concentration, and about the effects of and efforts to address this, is a level of concern sufficient to warrant further inquiry and exploration; LBP-11-20, 74 NRC 113-14 (2011)
Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-138, 6 AEC 520, 523 (1973)
for a reopening motion to be timely presented, movant must show that the issue sought to be raised could not have been raised earlier; LBP-11-20, 74 NRC 85 n.110 (2011)
to justify granting a motion to reopen, the moving papers must be strong enough, in the light of any opposing filings, to avoid summary disposition; CLI-11-8, 74 NRC 223 (2011)
Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 44 (1989)
consideration of remote and speculative impacts is not required by NEPA; LBP-11-38, 74 NRC 859 (2011)
NRC may decline to examine remote and speculative risks or events with inconsequentially small probabilities; LBP-11-26, 74 NRC 545 (2011)
Vermont Yankee Nuclear Power Corp. (Vermont Yankee Nuclear Power Station), CLI-00-20, 52 NRC 151, 163 (2000)
when seeking to intervene in a representational capacity, an organization must identify 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-11-21, 74 NRC 122 (2011)
Virginia Electric and Power Co. (North Anna Power Station, Unit 3), LBP-10-17, 72 NRC 501, 507-08, 517 (2010)
licensing boards have commonly afforded intervenors the opportunity to propose new contentions to challenge new information, even though no contention is pending; LBP-11-22, 74 NRC 277 (2011)
Washington Public Power Supply System (WPPSS Nuclear Project No. 3), LBP-96-21, 44 NRC 134, 136 (1996)
Part 51, not NEPA, is the source of the legal requirements applicable to the applicant's environmental report; LBP-11-32, 74 NRC 666 (2011)
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-11-21, 74 NRC 122 (2011)
Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 6 (1996)
judicial concepts of standing require that petitioner 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-11-21, 74 NRC 121 n.22 (2011)
once parties demonstrate standing, they will then be free to assert any contention, which, if proven, will afford them the relief they seek; LBP-11-21, 74 NRC 122 (2011); LBP-11-29, 74 NRC 616 (2011)
Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 249 (1996)
lack of clarity about which electrical cables might be subject to any saltwater environment, however high or low the concentration, and about the effects of and efforts to address this, is a level of concern sufficient to warrant further inquiry and exploration; LBP-11-20, 74 NRC 111-12 (2011)
Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-05-15, 61 NRC 365, 381 (2005)
contentions that neither explain how the application is inadequate nor identify which sections of the application are inadequate are inadmissible; LBP-11-21, 74 NRC 128 (2011)

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10 C.F.R. 2.4
"presiding officer" in NRC adjudicatory proceedings is defined; LBP-11-22, 74 NRC 277 n.92 (2011)

10 C.F.R. 2.103(b)
if NRC Staff finds that an application does not comply with regulatory requirements, it must inform applicant in writing of the nature of any deficiencies or the reason for the proposed denial and the deadline for seeking a hearing; LBP-11-19, 74 NRC 63 n.8 (2011)

10 C.F.R. 2.103(b)(2)
in denying an exemption request, Staff is required to inform applicant of the deadline for seeking a hearing; LBP-11-19, 74 NRC 62 n.7 (2011)

10 C.F.R. 2.109(b)
a power reactor licensee may preserve its license by filing a renewal application at least 5 years before its license is set to expire, affording the Staff ample time to complete the required environmental and safety reviews; LBP-11-30, 74 NRC 629 n.5 (2011)

10 C.F.R. 2.206
if petitioner is concerned about the sufficiency of the ongoing oversight of a nuclear power plant and its current evacuation plan, it has the option of requesting a modification, suspension, or revocation of its operating license; LBP-11-29, 74 NRC 623 (2011)

request for action against reactor facilities that have projected shortfalls in their decommissioning trust funds is denied in part and granted in part; DD-11-7, 74 NRC 788-800 (2011)

request for cold shutdown because of inoperability of main steam safety relief valves is denied but petitioner's concerns about the SRVs have been resolved; DD-11-6, 74 NRC 421-25 (2011)

request for enforcement action against U.S. Army for post-license-expiration possession and release into the environment of depleted uranium from spent spotting rounds is granted in part and denied in part; DD-11-5, 74 NRC 400-419 (2011)

to the extent petitioner believes there are existing management competence questions that merit immediate action, then its remedy is to direct the Staff's attention to those matters by filing a request for action; CLI-11-11, 74 NRC 437 (2011)

10 C.F.R. 2.302(c), (e)
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10 C.F.R. 2.309
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10 C.F.R. 2.309(a)
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10 C.F.R. 2.309(b)(3)(i)-(ii)
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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)-(viii)
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10 C.F.R. 2.309(d)(1)
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10 C.F.R. 2.309(d)(1)(i)
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10 C.F.R. 2.309(f)
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10 C.F.R. 2.309(f)(1)(iv)
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10 C.F.R. 2.309(f)(1)(v)
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10 C.F.R. 2.309(f)(2)

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10 C.F.R. 2.309(f)(2)(iii)

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10 C.F.R. 2.309(h)(2)

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10 C.F.R. 2.309(h)(3)

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10 C.F.R. 2.337(a)
boards accord each exhibit weight to the extent that it is relevant, material, and reliable; LBP-11-18, 74 NRC 36 (2011)
it is appropriate to require that evidence put forth to support a motion to reopen satisfy the Commission's admissibility standards which require that it be relevant, material, and reliable; LBP-11-23, 74 NRC 304 n.78 (2011)
10 C.F.R. 2.337(f)(1)
boards may take official notice of any fact of which a court of the United States may take judicial notice or of any technical or scientific fact within the knowledge of the Commission as an expert body; LBP-11-20, 74 NRC 101 n.56 (2011)
10 C.F.R. 2.340
the automatic stay provisions were removed in 2007; CLI-11-5, 74 NRC 155 n.49 (2011)
10 C.F.R. 2.341(b)
with the board's termination of the proceeding, the board's interlocutory rulings on contention admissibility became ripe for appeal; CLI-11-9, 74 NRC 236 (2011)
10 C.F.R. 2.341(b)(1)
petitions for review are allowed after a full or partial initial decision, both of which are considered final decisions; CLI-11-10, 74 NRC 255 (2011); CLI-11-14, 74 NRC 810 (2011)
10 C.F.R. 2.341(b)(1)-(3)
parties may choose whether to submit a petition for review, an answer in support of the petition, or neither; CLI-11-14, 74 NRC 808 n.36 (2011)
10 C.F.R. 2.341(b)(4)(i)-(v)
the Commission will grant a petition for review at its discretion, giving due weight to the existence of a substantial question with respect to one or more of the considerations of this section; CLI-11-9, 74 NRC 237 (2011)
10 C.F.R. 2.341(c)(2)
briefs on appeal are limited to 30 pages in length, absent Commission order directing otherwise; CLI-11-8, 74 NRC 219 (2011)
page limit for appellate briefs excludes tables of content and citation, appropriate exhibits, and statutory or regulatory extracts; CLI-11-8, 74 NRC 219 (2011)
10 C.F.R. 2.341(f)(1)
review of a board's certified question that raises a significant and novel issue whose early resolution will materially advance the orderly disposition of the proceeding is granted; CLI-11-4, 74 NRC 2 (2011)
10 C.F.R. 2.341(f)(2)
interlocutory review of board rulings is permitted when petitioner demonstrates either that the ruling threatens the petitioner with immediate and irreparable harm or the ruling has a pervasive and unusual

effect on the structure of the proceeding; CLI-11-6, 74 NRC 209 (2011); CLI-11-14, 74 NRC 811 (2011)

10 C.F.R. 2.341(f)(2)(i)-(ii)

denial of summary disposition neither threatens the Staff with immediate and serious irreparable impact which could not be alleviated through a petition for review of the presiding officer's final decision nor affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-11-10, 74 NRC 256 (2011)

10 C.F.R. 2.342

this provision explicitly authorizing stay applications is available only to parties to adjudicatory proceedings seeking stays of decisions or actions of a presiding officer pending the filing and resolution of a petition for review; CLI-11-5, 74 NRC 158 (2011)

10 C.F.R. 2.343

in its discretion, the Commission may allow oral argument upon the request of a party made in a petition for review, brief on review, or upon its own initiative; CLI-11-8, 74 NRC 219 n.15 (2011)

10 C.F.R. 2.710

the contradictory provisions of subsections (a) and (b) are discussed; LBP-11-23, 74 NRC 332 (2011)

the standard for deciding motions for summary disposition in Subpart L proceedings closely parallels the standard used by the federal courts in deciding motions for summary judgment; LBP-11-31, 74 NRC 648 (2011)

10 C.F.R. 2.710(b)

if reasonable minds could differ as to the import of the evidence, summary disposition is not appropriate; LBP-11-20, 74 NRC 103-04 n.72 (2011)

10 C.F.R. 2.710(d)(2)

motions for summary disposition will be granted if there is no genuine issue as to any material fact and the moving party is entitled to a decision as a matter of law; LBP-11-17, 74 NRC 20 n.40 (2011); LBP-11-31, 74 NRC 648, 649 (2011)

10 C.F.R. 2.714(a)(1)

where the time for filing contentions had expired in a given case, no new TMI-related contentions would be accepted absent a showing of good cause and a balancing of the late-filing factors; CLI-11-5, 74 NRC 154 (2011)

10 C.F.R. 2.749(b)

affidavits shall set forth such facts as would be admissible in evidence and shall show affirmatively that the affiant is competent to testify to the matters stated therein; LBP-11-23, 74 NRC 332 (2011)

10 C.F.R. 2.758(d) (2004)

if on the basis of the petition, affidavit, and any response provided for in paragraph (b) of this section, the presiding officer determines that a prima facie showing has been made, the presiding officer shall, before ruling thereon, certify the matter directly to the Commission; CLI-11-11, 74 NRC 448 n.116 (2011)

10 C.F.R. 2.764

the Commission temporarily suspended the immediate effectiveness rule following the Three Mile Island accident; CLI-11-5, 74 NRC 153 (2011)

10 C.F.R. 2.802

parties with new and significant information that could undermine the rationale for a Commission regulation must seek a rulemaking instead of challenging the regulation in a particular proceeding unless the information uniquely applies to a given adjudication; LBP-11-35, 74 NRC 715-16 (2011)

to the extent that petitioner challenges the generic environmental impact statement, its remedy is a petition for rulemaking or a petition for a waiver of the rules based on circumstances; CLI-11-11, 74 NRC 456 (2011)

10 C.F.R. 2.802(d)

a rulemaking petitioner may request that the Commission suspend all or any part of any licensing proceeding to which the petitioner is a party pending disposition of the petition for rulemaking; CLI-11-5, 74 NRC 173 (2011)

licensing boards (as opposed to the Commission) are not empowered to grant a request to suspend a licensing proceeding pending disposition of a rulemaking petition; LBP-11-33, 74 NRC 679 n.5 (2011)

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10 C.F.R. 2.1019(i)
the licensing board directed parties defending depositions to make efforts to identify and obtain Licensing Support Network documents that must be indexed for the benefit of other parties and to circulate those indexes as soon as practicable; CLI-11-13, 74 NRC 638 n.14 (2011)

10 C.F.R. 2.1205
affidavits are required to support statements of fact, and in ruling on summary disposition motions the standards of subpart G shall apply; LBP-11-23, 74 NRC 332 (2011)
the test for the "materially different result" requirement of section 2.326(a)(3), is whether it has been shown that a motion for summary disposition could be defeated; LBP-11-20, 74 NRC 94 (2011)

10 C.F.R. 2.1205(c)
in a proceeding governed by Subpart L, the board is to apply the standards of Subpart G when ruling on motions for summary disposition; LBP-11-17, 74 NRC 20 n.40 (2011)
successful motions for summary disposition must show that movant is entitled to a decision as a matter of law; LBP-11-31, 74 NRC 649 (2011)
summary disposition of a contention is appropriate when there no longer exists any genuine dispute over a material fact and the moving party is entitled to judgment as a matter of law; LBP-11-17, 74 NRC 20 (2011)
the standard for deciding motions for summary disposition in Subpart L proceedings is found in section 2.710; LBP-11-31, 74 NRC 648 (2011)

10 C.F.R. 2.1207
in a proceeding to be conducted under Subpart L, the evidentiary record is opened upon the filing of the first initial written statements of position and written testimony with supporting affidavits on the admitted contentions; LBP-11-22, 74 NRC 281 n.112 (2011)

10 C.F.R. Part 2, Appendix B
in an uncontested operating license proceeding, the Commission would informally review the Staff recommendations, and the license would issue only after Commission action; CLI-11-5, 74 NRC 153 n.34 (2011)

10 C.F.R. Part 2, Appendix B, § II
boards should develop schedules that will provide a fair and expeditious procedure for resolving new or amended contentions that might be proposed during the course of the proceeding, not just those already admitted; LBP-11-22, 74 NRC 279 (2011)
filing of new contentions based on the SER and Staff NEPA documents is expressly contemplated by the Model Milestones and scheduling orders; LBP-11-22, 74 NRC 272 (2011)
the Model Milestones permit the filing of proposed late-filed contentions on the Safety Evaluation Report and necessary National Environmental Policy Act documents within 30 days of the issuance of those documents; LBP-11-22, 74 NRC 262, 279 (2011)
when establishing a schedule, boards are to consider NRC's interest in providing a fair and expeditious resolution of the issues sought to be admitted for adjudication in the proceeding, along with other factors; LBP-11-22, 74 NRC 279 (2011)

10 C.F.R. 20.1003
ALARA is defined as every reasonable effort to maintain exposures to radiation as far below the dose limits in Part 20 as is practical consistent with the purpose for which the licensed activity is undertaken; CLI-11-12, 74 NRC 480 (2011)
the ALARA principle as used in NRC regulations does not mean as low as achievable as a comparison between achievable doses, but rather as low as reasonably achievable below the dose limits; CLI-11-12, 74 NRC 491 (2011)

10 C.F.R. 20.1101(b)
ALARA is a general requirement for all doses to members of the public established in the radiation protection programs in Part 20, including the license termination dose criteria; CLI-11-12, 74 NRC 480 (2011)
licensee must establish that the dose to a member of the public with legally enforceable institutional controls in place will not exceed 25 mrem per year, and is as low as reasonably achievable; CLI-11-12, 74 NRC 481 (2011)
the ALARA requirement in this section applies to the dose criteria for license termination; CLI-11-12, 74 NRC 481 (2011)

10 C.F.R. 20.1301
dose limit for individual members of the public from a licensed activity is a total effective dose equivalent of 100 millirem per year; CLI-11-12, 74 NRC 480 (2011)
10 C.F.R. 20.1401(d)
agreement states may adopt license termination requirements that incorporate more conservative dose calculation methodologies than NRC requirements; CLI-11-12, 74 NRC 482-83 (2011)
10 C.F.R. 20.1402
dose limit for license termination is a constraint within the public dose limit of 25 mrem per year to members of the public; CLI-11-12, 74 NRC 480 (2011)
for license termination under either restricted use or unrestricted use, dose to a member of the public must not only be 25 mrem per year or lower but also as low as reasonably achievable; CLI-11-12, 74 NRC 481 (2011)
sites not eligible for restricted release must be remediated to unrestricted use; CLI-11-12, 74 NRC 481 (2011)
terminating a license for unrestricted use allows no dependence on governmental monitoring of engineered barriers and land-use restrictions to achieve a maximum dose of 25 mrem per year to a member of the public; CLI-11-12, 74 NRC 480-81 (2011)
10 C.F.R. 20.1403
for license termination under either restricted use or unrestricted use, doses to a member of the public must not only be 25 mrem per year or lower but also as low as reasonably achievable; CLI-11-12, 74 NRC 481 (2011)
if a licensee is able to demonstrate initial eligibility for restricted release, it must then show that the restricted-release dose criteria will be met; CLI-11-12, 74 NRC 481 (2011)
terminating a license for restricted use relies on legally enforceable institutional controls to achieve the 25 mrem dose limit; CLI-11-12, 74 NRC 481 (2011)
10 C.F.R. 20.1403(a)
ALARA-based analysis must be performed to identify whether a site is eligible or ineligible for further consideration of restricted release; CLI-11-12, 74 NRC 481 (2011)
initial eligibility demonstration employs a cost-benefit analysis, either a conventional ALARA analysis or an analysis of net public or environmental harm, which incorporates a subset of the factors used in a conventional ALARA analysis; CLI-11-12, 74 NRC 481 (2011)
10 C.F.R. 20.1403(b)
dose limit for license termination is a constraint within the public dose limit of 25 mrem per year to members of the public; CLI-11-12, 74 NRC 480 (2011)
licensee must establish that the dose to a member of the public with legally enforceable institutional controls in place will not exceed 25 mrem per year, and is as low as reasonably achievable; CLI-11-12, 74 NRC 481 (2011)
10 C.F.R. 20.1403(e)
if institutional controls fail and engineered barriers have degraded over a period of time, the dose to a member of the public will not exceed 100 mrem per year, or 500 mrem per year under certain circumstances, and is as low as reasonably achievable; CLI-11-12, 74 NRC 481-82 (2011)
New Jersey has adopted license termination requirements that incorporate more conservative dose calculation methodologies than NRC requirements; CLI-11-12, 74 NRC 483 (2011)
10 C.F.R. Part 20, App. B
Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment; LBP-11-26, 74 NRC 565 (2011)
10 C.F.R. Part 20, App. B, tbl. 2
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10 C.F.R. 30.4
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10 C.F.R. 30.33(a)(5)
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10 C.F.R. 30.35(a)-(b)
the financial assurance requirements are structured according to the quantity of material that will be authorized for possession and use; CLI-11-4, 74 NRC 9 (2011)
10 C.F.R. 30.35(f)(2)
applicant's commitment to provide a letter of credit issued by a financial institution whose operations are regulated and examined by a federal or state agency is sufficient to satisfy decommissioning funding assurance requirements; CLI-11-4, 74 NRC 2 (2011); LBP-11-26, 74 NRC 517-18 (2011)
10 C.F.R. 30.35(f)(2)(ii)
an acceptable trustee includes an appropriate state or federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; CLI-11-4, 74 NRC 4 n.15 (2011)
because it has chosen a surety method, licensee must ensure that the letter of credit is payable to a trust established for decommissioning costs; CLI-11-4, 74 NRC 3 (2011)
10 C.F.R. Part 30, Appendix A, § II.B
financial tests for parent company guarantees and self-guarantees require that an independent certified public accountant review the data used in the financial test and require that the licensee inform NRC within 90 days of any matters coming to the auditor's attention that cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test; CLI-11-4, 74 NRC 7 n.31 (2011)
10 C.F.R. Part 30, Appendix C
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10 C.F.R. Part 30, Appendix C, § II.B(2)
financial tests for parent company guarantees and self-guarantees require that an independent certified public accountant review the data used in the financial test and require that the licensee inform NRC within 90 days of any matters coming to the auditor's attention that cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test; CLI-11-4, 74 NRC 7 n.31 (2011)
10 C.F.R. 40.3
assessment of monetary penalty against U.S. Army for possession of depleted uranium without a license is denied; DD-11-5, 74 NRC 404 (2011)
possession of depleted uranium at multiple installations without an NRC license and performance of decommissioning at a military installation without proper NRC authorization is a violation; DD-11-5, 74 NRC 403 (2011)
10 C.F.R. 40.4
"commencement of construction" includes clearing of land, excavation, or other substantial action that would adversely affect the natural environment of a site; LBP-11-26, 74 NRC 538 (2011)
10 C.F.R. 40.32(e)
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preconstruction activities that are allowed under Part 50 are also allowed for materials licenses; LBP-11-26, 74 NRC 539 (2011)
10 C.F.R. 40.36(a)-(b)
the financial assurance requirements are structured according to the quantity of material that will be authorized for possession and use; CLI-11-4, 74 NRC 9 (2011)

10 C.F.R. 40.36(b)(2), (d)
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10 C.F.R. 40.36(d)
request for an exemption that would enable it to provide decommissioning funding on a forward-looking, incremental basis, at a rate proportional to the then-current decontamination and decommissioning liability is granted; CLI-11-4, 74 NRC 3 n.4 (2011)
10 C.F.R. 40.36(e)
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10 C.F.R. 40.36(e)(2)
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10 C.F.R. 40.36(e)(2)(ii)
an acceptable trustee includes an appropriate state or federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; CLI-11-4, 74 NRC 4 n.15 (2011)
because it has chosen a surety method, licensee must ensure that the letter of credit is payable to a trust established for decommissioning costs; CLI-11-4, 74 NRC 3 (2011)
10 C.F.R. 40.42(a)
having submitted its license renewal application more than 30 days prior to the scheduled expiration of its current license, licensee is allowed to continue operations under that license; LBP-11-30, 74 NRC 631 (2011)
when licensee has made timely and sufficient application for a renewal, a license with reference to an activity of a continuing nature does not expire until the application has been finally determined by the agency; LBP-11-30, 74 NRC 629 n.5 (2011)
10 C.F.R. 50.2
production and utilization facilities include nuclear power reactors; LBP-11-25, 74 NRC 390 n.58 (2011)
the current licensing basis includes plant-specific design-basis information as documented in the most recent final safety analysis report; LBP-11-21, 74 NRC 130 (2011)
10 C.F.R. 50.9(a)
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10 C.F.R. 50.9(b)
applicants shall notify NRC of information identified by applicant as having, for the regulated activity, a significant implication for public health and safety or common defense and security; LBP-11-32, 74 NRC 668 n.31 (2011)
10 C.F.R. 50.10(a)(2)
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10 C.F.R. 50.33
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10 C.F.R. 50.33(f)
the source of funds for operating and maintenance expenses would be unaffected by a transaction for decommissioning funding; CLI-11-4, 74 NRC 7 n.30 (2011)
10 C.F.R. 50.34
the limited scope of review called for under Part 54, renewal of a license for a research reactor, is essentially a fresh operating license review; CLI-11-11, 74 NRC 436 n.47 (2011)
10 C.F.R. 50.38
no license may be issued to an alien or any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; LBP-11-25, 74 NRC 391 (2011)

to issue a combined license or entertain an application for a COL, the Commission cannot know or have reason to believe applicant is controlled by an alien, a foreign corporation, or a foreign government; LBP-11-25, 74 NRC 394-95 (2011)
10 C.F.R. 50.47(a)(1)(i)
license amendment requests do not require an updated or separate emergency plan unless such a plan would be germane to the type of license amendment request under review or is part of a licensee's periodic update of emergency plans; LBP-11-29, 74 NRC 622 (2011)
NRC explicitly requires an emergency plan for initial reactor operating licenses but does not require it for reactor operating license renewals; LBP-11-29, 74 NRC 622-23 (2011)
10 C.F.R. 50.49(a)
licensees are required to establish a program for qualifying certain defined electric equipment; LBP-11-20, 74 NRC 111 (2011)
10 C.F.R. 50.49(b)
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10 C.F.R. 50.49(c)
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10 C.F.R. 50.54(hh)(2)
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challenges to this provision are neither germane to age-related degradation nor unique to the license renewal period; LBP-11-21, 74 NRC 130 (2011)
current reactor licensees comply with the requirements of this section through conditions on their operating licenses; LBP-11-21, 74 NRC 131 (2011)
evaluation of existing dose projection models or a dose assessment are not required; CLI-11-9, 74 NRC 244 (2011)
licensees must develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities under the circumstances associated with loss of large areas of the plant due to explosions or fire; CLI-11-5, 74 NRC 149 n.14 (2011)
severe accident mitigative strategy requirements for licensees are set forth; CLI-11-9, 74 NRC 238 (2011)
this section applies to both current reactor licensees under Part 50 and new applicants for licenses under Part 52; LBP-11-21, 74 NRC 130 (2011)
this section requires use of readily available resources and identification of potential practicable areas for the use of beyond-readily-available resources, indicating NRC's preference for practicability; CLI-11-9, 74 NRC 243 n.57 (2011)
10 C.F.R. 50.54(x)
licensee may take reasonable action that departs from a license condition or a technical specification in an emergency when the action is immediately needed to protect the public health and safety and no action consistent with license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent; DD-11-6, 74 NRC 423 (2011)
10 C.F.R. 50.55a(b), 50.55a(g)(4)
this section on inservice inspections incorporates by reference the requirements of section XI of the ASME Boiler and Pressure Vessel Code; CLI-11-8, 74 NRC 230 (2011)
10 C.F.R. 50.71
the current licensing basis includes plant-specific design-basis information as documented in the most recent final safety analysis report; LBP-11-21, 74 NRC 130 (2011)
10 C.F.R. 50.72
licensee's failure to timely notify NRC about safety relief valve failure and inoperability is a violation; DD-11-6, 74 NRC 422-23 (2011)
10 C.F.R. 50.72(b)
licensee must notify NRC as soon as practical, and in all cases within 1 hour of the occurrence, of any deviation from a plant's technical specifications; DD-11-6, 74 NRC 423 (2011)

10 C.F.R. 50.73
relief valve failure and inoperability found during the refueling outage, which potentially affected the ability of the SRVs to satisfy design actuation requirements, meets the requirements for a licensee event report; DD-11-6, 74 NRC 423 (2011)
10 C.F.R. 50.73(a)(2)(i)(B)
evidence that relief valve failure and inoperability may have existed for a period of time greater than allowed by technical specifications is a reportable event; DD-11-6, 74 NRC 423 (2011)
10 C.F.R. 50.75(b) and (c)
estimated amount of decommissioning funds must be reported to NRC; DD-11-7, 74 NRC 790 (2011)
10 C.F.R. 50.75(c)
licensees may use a site-specific methodology to determine the decommissioning funding needed as long as the amount is greater than the decommissioning cost estimate derived from formulas in this section; DD-11-7, 74 NRC 791 (2011)
licensees must use the formulas in this section to estimate the minimum funding amount needed for radiological decommissioning; DD-11-7, 74 NRC 791 (2011)
10 C.F.R. 50.75(e)(1)(v)
contracts that licensee is relying on for decommissioning funding must be reported to NRC; DD-11-7, 74 NRC 791 (2011)
10 C.F.R. 50.75(e)(2)
NRC reserves the right to review, as necessary, the rate of accumulation of decommissioning funds and to take additional actions, as appropriate on a case-by-case basis, to ensure an adequate accumulation of decommissioning funds; DD-11-7, 74 NRC 791, 792 (2011)
10 C.F.R. 50.75(f)(1) and (2)
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10 C.F.R. 50.109
backfitting includes the modification of or addition to systems, structures, components, or designs of a facility; LBP-11-17, 74 NRC 17 n.19 (2011)
10 C.F.R. 50.109(a)(3)
NRC shall require the backfitting of a facility only when it determines that there is a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation for that facility are justified in view of this increased protection; LBP-11-17, 74 NRC 22 n.53, 26 (2011)
10 C.F.R. Part 50, App. E
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10 C.F.R. 51.1
because the Commission has established a requirement to provide information to be used by NRC staff in fulfillment of its obligation under the National Environmental Policy Act, suitability of applicant's SAMA analysis must be judged by the requirements of NEPA; LBP-11-18, 74 NRC 37 (2011)
10 C.F.R. 51.10(a)
NRC, as an independent regulatory agency, is not bound by those portions of CEQ's NEPA regulations that have a substantive impact on the way in which NRC performs its regulatory functions; CLI-11-11, 74 NRC 444 (2011)
to evaluate a license renewal application for a nuclear power reactor, NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54 the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 21 (2011)
10 C.F.R. 51.14(a)(3)
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10 C.F.R. 51.14(b)
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10 C.F.R. 51.20(b)(2)
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10 C.F.R. 51.41
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NRC Staff is empowered to issue requests for additional information relevant to an applicant's environmental report; LBP-11-33, 74 NRC 681 n.9 (2011); LBP-11-34, 74 NRC 697 (2011)
10 C.F.R. 51.45
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10 C.F.R. 51.45(b)(3)
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10 C.F.R. 51.45(c)
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10 C.F.R. 51.50(c)
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10 C.F.R. 51.50(c)(1)(iii)
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10 C.F.R. 51.51(a)
contributions of the uranium fuel cycle must be evaluated and added to the environmental costs of a proposed new nuclear power plant; LBP-11-26, 74 NRC 543 (2011)
10 C.F.R. 51.53(b)
section 51.53(c)(3)(iv) does not apply to license amendment applicants requesting a power uprate; LBP-11-29, 74 NRC 624 (2011)
10 C.F.R. 51.53(b)(2)
the costs and benefits of the energy-efficient building code are essential to determine whether the adoption of an energy-efficient building code should be included as an alternative; LBP-11-21, 74 NRC 136 (2011)
10 C.F.R. 51.53(c)
license renewal applicants need not provide a site-specific analysis of the environmental impacts of spent fuel storage in their environmental report; CLI-11-11, 74 NRC 445 (2011)
10 C.F.R. 51.53(c)(2)
a license renewal environmental report is not required to include discussion of need for power; LBP-11-21, 74 NRC 136 (2011)
discussion of the economic costs and benefits of the proposed action and alternatives is required if such costs and benefits are essential for a determination regarding the inclusion of an alternative in the range of alternatives considered; LBP-11-21, 74 NRC 136 (2011)
purpose of the regulation is described; CLI-11-11, 74 NRC 449 (2011)

10 C.F.R. 51.53(c)(3)(i)
because Category 1 issues already have been reviewed on a generic basis, applicant's environmental report need not provide a site-specific analysis of these issues; CLI-11-11, 74 NRC 445 (2011); LBP-11-21, 74 NRC 132 (2011)
challenges to the basic regulatory structure of the NRC's design basis and generic environmental impacts already assessed through rulemaking are inadmissible; LBP-11-32, 74 NRC 663 (2011)
10 C.F.R. 51.53(c)(3)(i)-(ii)
environmental impacts of license renewal are classified as either Category 1, which are generically addressed by the NRC's generic environmental impact statement for license renewal, or Category 2, which are analyzed on a site-specific basis; LBP-11-17, 74 NRC 21 (2011)
10 C.F.R. 51.53(c)(3)(ii)
license renewal applicants must provide a plant-specific analysis of issues designated as Category 2; CLI-11-11, 74 NRC 445 n.99 (2011); LBP-11-21, 74 NRC 132 (2011)
10 C.F.R. 51.53(c)(3)(ii)(L)
at the contention admissibility stage, it is simply not appropriate for boards to decide what additional information, if any, is necessary to cure a claimed deficiency in a license application; CLI-11-11, 74 NRC 439-40 (2011)
for license renewal, analysis of the potential mitigation of, and alternatives to, severe accidents is required on a site-specific basis; LBP-11-17, 74 NRC 25 (2011)
for operating license renewal, if NRC Staff has not previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement or related supplement or in an environmental assessment, applicant's environmental report must contain a consideration of SAMAs; LBP-11-17, 74 NRC 21, 27 (2011); LBP-11-18, 74 NRC 37 (2011); LBP-11-21, 74 NRC 132 (2011)
NEPA requires NRC to provide a reasonable mitigation alternatives analysis, containing reasonable estimates, including, where appropriate, full disclosures of any known shortcomings in available methodology, incomplete or unavailable information and significant uncertainties, and a reasoned evaluation of whether and to what extent these or other considerations credibly could or would alter the analysis on which SAMDAs are considered; LBP-11-38, 74 NRC 832 (2011)
site-specific consideration of severe accident mitigation alternatives is required at the time of license renewal unless a previous consideration of such alternatives regarding plant operation has been included in a final environmental impact statement, final environmental assessment, or a related supplement; CLI-11-5, 74 NRC 166 n.100 (2011)
the final supplemental environmental impact statement must demonstrate that the NRC Staff has received sufficient information to take a hard look at severe accident mitigation alternatives; LBP-11-17, 74 NRC 27 (2011)
10 C.F.R. 51.53(c)(3)(iv)
applicant is not barred from voluntarily supplementing its environmental report; LBP-11-32, 74 NRC 668 n.30 (2011)
environmental reports must include new information when a prior license has been issued for the facility, and the ER in question is associated with a subsequent license for the same facility; LBP-11-32, 74 NRC 667 (2011)
for an operating license renewal stage, the environmental report must contain any new and significant information regarding the environmental impacts of license renewal of which applicant is aware; LBP-11-29, 74 NRC 624 (2011); LBP-11-32, 74 NRC 666, 667 (2011)
NRC Staff is not barred from filing a request for additional information asking the applicant to supplement the environmental report; LBP-11-32, 74 NRC 668 n.30 (2011)
the phrase "new" requires that the environmental report include environmental information that is new as compared to the original ER for the same facility and new as of the time of submission of the required ER, but does not impose a continuing duty to supplement an ER that was compliant when submitted; LBP-11-32, 74 NRC 667 (2011)
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10 C.F.R. 51.53(d)
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10 C.F.R. 51.71
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10 C.F.R. 51.71(a)
the purpose of applicant's environmental report is to assist NRC in preparing the agency's own environmental analysis; LBP-11-28, 74 NRC 608 (2011)
10 C.F.R. 51.71(d)
applicant's radiological measurements and monitoring program is subject to scrutiny; LBP-11-26, 74 NRC 565 (2011)
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10 C.F.R. 51.72
only where new information presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned is supplementation of an environmental impact statement required; LBP-11-39, 74 NRC 868 (2011)
10 C.F.R. 51.72(a)
circumstances under which NRC Staff must prepare supplemental environmental review documents are described; CLI-11-5, 74 NRC 167 (2011); LBP-11-33, 74 NRC 682 n.12 (2011)
NRC Staff must include new and significant information in the supplemental draft environmental impact statement; LBP-11-34, 74 NRC 697-98 (2011)
NRC Staff must supplement the draft environmental impact statement if there are substantial changes in the proposed action that are relevant to environmental concerns or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; LBP-11-33, 74 NRC 681 (2011)
10 C.F.R. 51.72(a)(2)
draft environmental impact statements must capture and address any new and significant information that arises in the interval after the applicant files its originally compliant environmental report; LBP-11-32, 74 NRC 667, 669 n.33 (2011)
if recommendations of the NRC's Near-Term Task Force review of the Fukushima Dai-ichi accident constitute relevant new and significant information, then the draft supplemental environmental impact statement must address it; LBP-11-28, 74 NRC 608 (2011)
supplement to the draft or final environmental impact statement is required if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; LBP-11-28, 74 NRC 609 (2011); LBP-11-32, 74 NRC 662, 672 (2011)
where NRC intends to mandate that an originally compliant environmental document be supplemented, it does so explicitly; LBP-11-32, 74 NRC 666-67 (2011)
10 C.F.R. 51.72(b)
NRC Staff has the option of preparing a supplement to a draft or final environmental impact statement when, in its opinion, preparation of a supplement will further the purposes of NEPA; CLI-11-5, 74 NRC 167 n.103 (2011)
10 C.F.R. 51.92(a)
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10 C.F.R. 51.92(a)(1)-(2)
before taking a proposed action, Staff must issue a supplemental environmental impact statement if there are substantial changes in the proposed action that are relevant to environmental concerns or there are new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; LBP-11-39, 74 NRC 868 (2011)

10 C.F.R. 51.92(a)(2)
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where NRC intends to mandate that an originally compliant environmental document be supplemented, it does so explicitly; LBP-11-32, 74 NRC 667 (2011)
10 C.F.R. 51.92(c)
NRC Staff has the option of preparing a supplement to a draft or final environmental impact statement when, in its opinion, preparation of a supplement will further the purposes of NEPA; CLI-11-5, 74 NRC 167 n.103 (2011)
10 C.F.R. 51.95(c)(4)
environmental impacts of license renewal are classified as either Category 1, which are generically addressed by the NRC's generic environmental impact statement for license renewal, or Category 2, which are analyzed on a site-specific basis; LBP-11-17, 74 NRC 21 (2011)
10 C.F.R. 51.103(a)(4)
once NRC completes its environmental review, its record of decision must state whether NRC has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted, and summarize any license conditions and monitoring programs adopted in connection with mitigation measures; LBP-11-17, 74 NRC 22 (2011)
10 C.F.R. Part 51, Subpart A, Appendix A, § 4
as part of its NEPA analysis, NRC must provide information that addresses the purpose and need for the proposed action; LBP-11-26, 74 NRC 521 (2011)
10 C.F.R. Part 51, Subpart A, Appendix A, § 7
regardless of their classification as direct, indirect, or cumulative, impacts that are reasonably foreseeable are to be assessed in an environmental impact statement; LBP-11-26, 74 NRC 546 (2011)
10 C.F.R. Part 51, Subpart A, Appendix B
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10 C.F.R. Part 51, Subpart A, Appendix B, n.2
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10 C.F.R. Part 51, Subpart A, Appendix B, tbl. B-1
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for a mitigation analysis, NEPA demands no fully developed plan or detailed examination of specific measures that will be employed to mitigate adverse environmental effects; LBP-11-23, 74 NRC 330 (2011)
for generic analysis of severe accidents, the probability-weighted consequences of atmospheric releases, fallout onto open bodies of water, releases to groundwater, and societal and economic impacts of severe accidents are of small significance for all plants; CLI-11-5, 74 NRC 166 n.100 (2011)
if NRC Staff has not already considered site-specific severe accident mitigation alternatives for a facility, they must be considered as part of applicant's environmental report and ultimately as part of NRC Staff's supplemental EIS in a power reactor license renewal proceeding; LBP-11-17, 74 NRC 21 (2011)
10 C.F.R. Part 51, Subpart A, Appendix B, table B-1 n.3
as a tool for assessing the significance of potential impacts, NRC regulations establish a standard scheme; LBP-11-26, 74 NRC 546 (2011)
10 C.F.R. Part 52
this part governs issuance of early site permits, standard design certifications, combined licenses, standard design approvals, and manufacturing licenses for nuclear power facilities; LBP-11-21, 74 NRC 131 (2011)
10 C.F.R. 52.47(a)(23), (27)
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10 C.F.R. 52.63(a)(1)
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10 C.F.R. 52.63(a)(5)
challenging features of the AP1000 standard design is a matter for a design certification rulemaking, not a combined license proceeding; CLI-11-8, 74 NRC 230 (2011)
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10 C.F.R. 52.75(a)
any person except one excluded by section 50.38 may file an application for a combined license for a nuclear power facility; LBP-11-25, 74 NRC 395 n.91 (2011)
10 C.F.R. 52.79
applicant's plan to postpone most of its decisions about low-level radioactive waste disposal does not violate this section; LBP-11-31, 74 NRC 649 (2011)
10 C.F.R. 52.79(a)
information in the FSAR for controlling and limiting radioactive effluents and radiation exposures must be 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-11-31, 74 NRC 649 (2011)
motion for summary disposition is granted because there is no genuine issue or dispute as to any material fact and applicant's low-level radioactive waste plan satisfies the requirements of this section; LBP-11-31, 74 NRC 52.79(a) (2011)
10 C.F.R. 52.79(a)(3)
combined license applications must provide a level of information on plans to manage and store low-level radioactive waste onsite sufficient to enable the Commission to conclude that the application will comply with 10 C.F.R. Part 20; CLI-11-10, 74 NRC 253 (2011)
information in the FSAR must include the means for controlling and limiting radioactive effluents and radiation exposures within the limits set forth in Part 20; LBP-11-31, 74 NRC 649 (2011)
10 C.F.R. 52.79(a)(11)
a combined license application must describe the programs, and their implementation, necessary to ensure that systems and components meet the requirements of the ASME Boiler and Pressure Vessel Code and the ASME Code of Operation and Maintenance of Nuclear Power Plants in accordance with section 50.55a; CLI-11-8, 74 NRC 230 (2011)
10 C.F.R. 52.80(d)
COL applications must include a description and plans for implementation of the guidance and strategies required by section 50.54(hh)(2) for severe accident mitigation; CLI-11-9, 74 NRC 238 (2011)
evaluation of existing dose projection models or a dose assessment is not required; CLI-11-9, 74 NRC 244 (2011)
this section mandates compliance with the agency's loss-of-large-areas requirements in 10 C.F.R. 50.54(hh)(2), but does not apply to a license renewal proceeding; LBP-11-21, 74 NRC 131 (2011)
10 C.F.R. 52.97
the extent and type of information required in a COL application regarding the question of long-term, onsite low-level radioactive waste storage is disputed; CLI-11-10, 74 NRC 255 (2011)
10 C.F.R. Part 52, Appendix A, § VI.B.7
issues surrounding severe accident mitigation design alternatives that have been resolved by regulation may not be challenged in a combined license adjudication; CLI-11-6, 74 NRC 205, 206 (2011)
10 C.F.R. Part 54
nonpower reactors, including research and test reactors, differ as a class from nuclear power plants and are not covered by this Part; CLI-11-11, 74 NRC 436 n.47 (2011)
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10 C.F.R. 54.1
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10 C.F.R. 54.3
a facility's current licensing basis contains any license conditions; LBP-11-21, 74 NRC 131 (2011)

NRC's ongoing regulatory process ensures that the current licensing basis of an operating plant remains acceptably safe; LBP-11-21, 74 NRC 127 (2011)
operating license renewal applicants must reassess time-limited aging analyses made during the original license term and based upon the length of the original license term; LBP-11-21, 74 NRC 129 (2011)
the current licensing basis includes licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports; LBP-11-21, 74 NRC 130 n.86 (2011)
10 C.F.R. 54.3(a)
the current licensing basis is the set of NRC requirements (including regulations, orders, technical specifications, and license conditions) applicable to a specific plant, and includes the licensee's written, docketed commitments for ensuring compliance with applicable NRC requirements and the plant-specific design basis; LBP-11-17, 74 NRC 21 (2011)
10 C.F.R. 54.4
the scope of license renewal is addressed; LBP-11-20, 74 NRC 108 (2011)
10 C.F.R. 54.4(a)
safety-related systems, structures, and components are those relied upon to remain functional during and following design-basis events to ensure specific functions; LBP-11-20, 74 NRC 110 (2011)
10 C.F.R. 54.13(a)
information provided to NRC by an applicant must be complete and accurate in all material respects; LBP-11-32, 74 NRC 668 n.31 (2011)
10 C.F.R. 54.13(b)
applicants shall notify NRC of information identified by applicants as having, for the regulated activity, a significant implication for public health and safety or common defense and security; LBP-11-32, 74 NRC 668 n.31 (2011)
10 C.F.R. 54.21
contents of a license renewal application are described; LBP-11-20, 74 NRC 111 (2011)
10 C.F.R. 54.21(a)(3)
operating license renewal applicants must demonstrate how they will adequately manage the effects of aging during the proposed renewal term; LBP-11-21, 74 NRC 129 (2011)
10 C.F.R. 54.21(b)
applicant must update its license renewal application annually to reflect changes in its current licensing basis, but such updating does not explicitly extend to the environmental report; LBP-11-32, 74 NRC 665, 668 n.31 (2011)
10 C.F.R. 54.21(c)
operating license renewal applicants must reassess time-limited aging analyses made during the original license term and based upon the length of the original license term; LBP-11-21, 74 NRC 129 (2011)
10 C.F.R. 54.21(c)(1)(iii)
a commitment to implement an aging management plan that NRC finds is consistent with the GALL Report constitutes one acceptable method for compliance; LBP-11-20, 74 NRC 104 n.73 (2011)
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 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; CLI-11-11, 74 NRC 433 n.27 (2011)
10 C.F.R. 54.29(a)(1)
an operating license may be renewed if NRC finds, among other things, that actions have been identified and have been or will be taken to manage the effects of aging during the period of extended operation on the functionality of certain identified structures and components; CLI-11-11, 74 NRC 432 (2011)
10 C.F.R. 54.29(a)-(b)
scope of reactor operating license renewal review is outlined; LBP-11-17, 74 NRC 21 (2011)
10 C.F.R. 54.29(b)
a license renewal cannot be granted unless and until all the applicable requirements of 10 C.F.R. Part 51 have been satisfied; LBP-11-17, 74 NRC 27 n.76 (2011)

for a license renewal to be issued, the Commission must determine that the applicable requirements of 10 C.F.R. Part 51, Subpart A have been satisfied; LBP-11-18, 74 NRC 37 (2011)

10 C.F.R. 54.33(c)

the current licensing basis of an operating license shall continue during the license renewal period, but these conditions may be supplemented or amended as necessary to protect the environment during the term of the renewed license and will be derived from information contained in the supplement to the environmental report, as analyzed and evaluated in the NRC record of decision; LBP-11-17, 74 NRC 22 (2011)

10 C.F.R. 70.4

"commencement of construction" includes clearing of land, excavation, or other substantial action that would adversely affect the natural environment of a site; LBP-11-26, 74 NRC 538 (2011)

10 C.F.R. 70.23(a)(7)

for a proposed nuclear materials-related activity, commencement of construction relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance is grounds for denial of the authorization to conduct that activity; LBP-11-26, 74 NRC 538 (2011)

preconstruction activities that are allowed under Part 50 are also allowed for materials licenses; LBP-11-26, 74 NRC 539 (2011)

10 C.F.R. 70.25(a)

depending on the quantity of material, Part 70 license applicants must submit either a decommissioning funding plan or a certification of financial assurance; CLI-11-4, 74 NRC 9 (2011)

10 C.F.R. 70.25(a)(1)

applicant seeking a specific license associated with a uranium enrichment facility must submit a decommissioning funding plan; CLI-11-4, 74 NRC 9 (2011)

10 C.F.R. 70.25(a)-(b)

the financial assurance requirements are structured according to the quantity of material that will be authorized for possession and use; CLI-11-4, 74 NRC 9 (2011)

10 C.F.R. 70.25(b)(1)-(2)

depending on the quantity of material, Part 70 license applicants must submit either a decommissioning funding plan or a certification of financial assurance; CLI-11-4, 74 NRC 9 (2011)

10 C.F.R. 70.25(b)(2)

certification of financial assurance may state that the appropriate assurance will be obtained after the application has been approved and the license issued but before the receipt of licensed material; CLI-11-4, 74 NRC 9 n.43 (2011)

certifications of financial assurance, which are used by applicants seeking to possess smaller quantities of material, are governed by this subsection; CLI-11-4, 74 NRC 9 (2011)

NRC Staff authorization permitting applicant to defer execution of any final letters of credit for decommissioning financial assurance until after a license is issued but before receipt of licensed material might be problematic; LBP-11-26, 74 NRC 518 (2011)

10 C.F.R. 70.25(d)

possession limits associated with a certification of financial assurance are set forth in this subsection; CLI-11-4, 74 NRC 9 (2011)

10 C.F.R. 70.25(e)

applicant seeking a specific license for a uranium enrichment facility is required to submit a decommissioning funding plan consistent with this subsection; CLI-11-4, 74 NRC 9 (2011)

deferral of execution of the financial instruments until after the license has issued is not allowed for a uranium enrichment facility; CLI-11-4, 74 NRC 9 (2011)

each decommissioning funding plan must include a signed original of the instrument obtained to provide financial assurance for decommissioning at the time the plan is submitted; CLI-11-4, 74 NRC 9 (2011)

request for an exemption that would enable it to provide decommissioning funding on a forward-looking, incremental basis, at a rate proportional to the then-current decontamination and decommissioning liability is granted; CLI-11-4, 74 NRC 3 n.4 (2011)

10 C.F.R. 70.25(f)(2)

applicant's commitment to provide a letter of credit issued by a financial institution whose operations are regulated and examined by a federal or state agency is sufficient to satisfy decommissioning funding assurance requirements; CLI-11-4, 74 NRC 2 (2011); LBP-11-26, 74 NRC 517-18 (2011)

10 C.F.R. 70.25(f)(2)(ii)
an acceptable trustee includes an appropriate state or federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; CLI-11-4, 74 NRC 4 n.15 (2011)
because it has chosen a surety method, licensee must ensure that the letter of credit is payable to a trust established for decommissioning costs; CLI-11-4, 74 NRC 3 (2011)
10 C.F.R. 70.59
Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment; LBP-11-26, 74 NRC 565 (2011)
10 C.F.R. Part 73
NRC defers to other agencies with greater expertise on an issue; CLI-11-4, 74 NRC 6 (2011)
10 C.F.R. 73.1
licensees must establish and maintain systems to protect against acts of radiological sabotage and to prevent the theft or diversion of special nuclear material; CLI-11-4, 74 NRC 6 (2011)
12 C.F.R. 3.14, 4.6, and Subpart E
federal financial regulatory agencies regularly examine banks within their jurisdiction, generally at 12- or 18-month intervals; CLI-11-4, 74 NRC 5 n.21 (2011)
36 C.F.R. 60.4
historical/cultural resources are considered eligible for listing on the National Register of Historic Places if they meet one or more of four criteria; LBP-11-26, 74 NRC 576 (2011)
40 C.F.R. Part 50
EPA's National Ambient Air Quality Standards set maximum levels for air pollutants in the ambient air deemed to provide protection for human health and welfare; LBP-11-26, 74 NRC 555 (2011)
40 C.F.R. 1500.1(c)
NEPA's fundamental purpose is helping public officials make decisions that are based on understanding of environmental consequences and that protect, restore, and enhance the environment; LBP-11-17, 74 NRC 27 (2011); LBP-11-23, 74 NRC 304, 329, 335 (2011)
40 C.F.R. 1502.14
consideration of alternatives "is the heart of the environmental impact statement; LBP-11-35, 74 NRC 750 (2011)
40 C.F.R. 1502.16(e)
because federal agencies typically describe their consideration of the energy requirements of a proposed action, in the context of that analysis agencies should evaluate greenhouse gas emissions; LBP-11-26, 74 NRC 550 n.21 (2011)
40 C.F.R. 1502.22
at the contention admissibility stage, it is simply not appropriate for boards to decide what additional information, if any, is necessary to cure a claimed deficiency in a license application; CLI-11-11, 74 NRC 439-40 (2011)
information may be unavoidably incomplete or unavailable, and under those circumstances, a final environmental impact statement can overcome this deficiency if it states that fact, explains how the missing information is relevant, sets forth the existing information, and evaluates the environmental impacts to the best of the agency's ability; CLI-11-11, 74 NRC 444 n.94 (2011)
probabilistic analysis of the risks posed by the Shoreline Fault is essential to the SAMA, and must be included unless the cost is exorbitant; CLI-11-11, 74 NRC 439 (2011)
Staff's ability to satisfy its NEPA obligations will be undermined if applicant either fails to include seismic information in its SAMA analysis, or, in omitting the information, fails to explain its absence and justify that the overall costs of obtaining it are exorbitant; CLI-11-11, 74 NRC 438, 439 (2011)
40 C.F.R. 1502.22(b)(1)
reasonably foreseeable environmental impacts that have catastrophic consequences, even if their probability of occurrence is low, must be considered in the environmental impact statement; LBP-11-23, 74 NRC 336 (2011)
40 C.F.R. 1508.7
cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time; LBP-11-26, 74 NRC 546 (2011)

irrespective of the cause of the impact or the appropriate level of administrative scrutiny, for the purpose of NEPA evaluation, NRC regulations categorize impacts into direct, indirect, and cumulative; LBP-11-26, 74 NRC 546 (2011)
40 C.F.R. 1508.8
because federal agencies typically describe their consideration of the energy requirements of a proposed action, in the context of that analysis agencies should evaluate greenhouse gas emissions; LBP-11-26, 74 NRC 550 (2011)
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irrespective of the cause of the impact or the appropriate level of administrative scrutiny, for the purpose of NEPA evaluation, NRC regulations categorize impacts into direct, indirect, and cumulative; LBP-11-26, 74 NRC 546 (2011)
40 C.F.R. 1508.25
irrespective of the cause of the impact or the appropriate level of administrative scrutiny, for the purpose of NEPA evaluation, NRC regulations categorize impacts into direct, indirect, and cumulative; LBP-11-26, 74 NRC 546 (2011)
40 C.F.R. 1508.27
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5 U.S.C. § 558(c)
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Administrative Procedure Act, 5 U.S.C. § 706(2)(A)
  arbitrary and unreasonable restrictions on the right to a hearing would violate the prohibition on agency action that is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; LBP-11-22, 74 NRC 282 (2011)
Atomic Energy Act, 53, 63, 42 U.S.C. § 2073, 2093
  NRC has clear statutory authority to regulate the construction and operation of a uranium enrichment facility; LBP-11-26, 74 NRC 518-19 (2011)
Atomic Energy Act, 102, 42 U.S.C. § 2132(a)
  commercial licenses for utilization or production facilities for industrial or commercial purposes shall be issued according to the terms of section 103 of the AEA; LBP-11-25, 74 NRC 390 (2011)
Atomic Energy Act, 103, 42 U.S.C. § 2133(d)
  no license may be issued to an alien or any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; LBP-11-25, 74 NRC 390-91 (2011)
Atomic Energy Act, 189a, 42 U.S.C. § 2239(a)
  NRC needs to conduct only a single licensing action and adjudicatory proceeding to authorize construction and operation and a mandatory hearing regarding the application and the Staff's associated safety and environmental reviews, despite the absence of a petitioner challenging applicant's request; LBP-11-26, 74 NRC 519 (2011)
  this section has been interpreted to require that the hearing must encompass all material factors bearing on the licensing decision raised by the requester; LBP-11-22, 74 NRC 269, 275, 276 (2011)
Atomic Energy Act, 189a(1)(A), 42 U.S.C. § 2239(a)(1)(A)
  the Commission, but not a licensing board, has the power to address a protracted delay in the proceeding and to direct appropriate remedial measures; LBP-11-30, 74 NRC 628 (2011)
  the Commission shall grant a hearing to and admit as a party to any licensing proceeding any person whose interest may be affected by the proceeding; LBP-11-22, 74 NRC 269 (2011); LBP-11-29, 74 NRC 615 (2011)
Atomic Energy Act, 193, 42 U.S.C. § 2243
  NRC needs to conduct only a single licensing action and adjudicatory proceeding to authorize construction and operation and a mandatory hearing regarding the application and the Staff's associated safety and environmental reviews, despite the absence of a petitioner challenging applicant's request; LBP-11-26, 74 NRC 519 (2011)
Atomic Energy Act, 274, 42 U.S.C. § 2021 (2011)
  NRC is authorized to enter into agreements with the governor of any state providing for transfer of regulatory authority to the state over specified categories of nuclear material; CLI-11-12, 74 NRC 464 (2011)
  prior to entering into an agreement with a state, NRC must find that a state's regulatory program is adequate to protect the public health and safety with respect to the materials the state seeks to regulate, and compatible with NRC's program for regulation of such materials; CLI-11-12, 74 NRC 464 (2011)

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STATUTES

Atomic Energy Act, 274a(1), 42 U.S.C. § 2021(a)(1)
the central purpose and policy animating the agreement-state legislation is to recognize the interests of the states in the peaceful uses of atomic energy; CLI-11-12, 74 NRC 473 (2011)
the stated purpose of the legislation is to clarify the respective responsibilities under the AEA of the states and NRC with respect to the regulation of byproduct, source, and special nuclear materials; CLI-11-12, 74 NRC 471-72 (2011)
Atomic Energy Act, 274a(3)
the purpose of this act is to promote an orderly regulatory pattern between NRC and state governments with respect to nuclear development and use and regulation of byproduct, source, and special nuclear materials; CLI-11-12, 74 NRC 476 (2011)
Atomic Energy Act, 274b, 42 U.S.C § 2021(b)
NRC is authorized to enter into agreements with a state with respect to any one or more of a variety of classes of nuclear materials; CLI-11-12, 74 NRC 470 (2011)
Atomic Energy Act, 274c(1), 42 U.S.C. § 2021(c)(1)
NRC has clear statutory authority to regulate the construction and operation of a uranium enrichment facility; LBP-11-26, 74 NRC 518-19 (2011)
Atomic Energy Act, 274d, 42 U.S.C § 2021(d)
this subsection is construed as providing the specific conditions under which the Commission shall exercise the general legal authority granted to it under subsection b; CLI-11-12, 74 NRC 472 (2011)
this subsection is construed as requiring NRC to enter into an agreement for state regulation of the particular categories of nuclear materials that a state certifies it both desires to regulate and has established a program for, provided that NRC finds the state's program for regulation of such materials to be adequate and compatible; CLI-11-12, 74 NRC 473 (2011)
Atomic Energy Act, 274j, 42 U.S.C. § 2021(j) (2011)
NRC retains power to revoke agreements with states and to restore NRC regulatory authority; CLI-11-12, 74 NRC 498 (2011)
Clean Air Act, 42 U.S.C. § 7409(b)
EPA's National Ambient Air Quality Standards set maximum levels for air pollutants in the ambient air deemed to provide protection for human health and welfare; LBP-11-26, 74 NRC 555 (2011)
Clean Air Act, 42 U.S.C. § 7410(a)(1)
EPA has granted authority to Idaho to implement, maintain, and enforce its own EPA-compliant air quality programs through State Ambient Air Quality Standards; LBP-11-26, 74 NRC 555 (2011)
Clean Air Act, 42 U.S.C. § 7411
EPA possesses authority to set numerical standards for air pollutants from emission sources, which would include the proposed uranium enrichment facility; LBP-11-26, 74 NRC 555 (2011)
Federal Records Act, 44 U.S.C. §§ 2101-18, 2901-09, 3101-07, 3301-24
the Department of Energy has independent records retention obligations regarding creation, management, and disposal of records; CLI-11-13, 74 NRC 639 n.16 (2011)
National Environmental Policy Act, 42 U.S.C. § 4332
NEPA's procedural obligation is carried out through an agency's issuance of an environmental impact statement documenting the agency's hard look at potential environmental impacts of the proposed action and reasonable alternatives thereto; LBP-11-39, 74 NRC 868 (2011)
nothing in NEPA, which applies to agencies of the federal government, can be read to require an applicant to update its environmental report; LBP-11-34, 74 NRC 697 (2011)
the environmental impact statement's hard look must examine reasonably foreseeable environmental impacts emanating from the proposed action; LBP-11-39, 74 NRC 868 (2011)
National Environmental Policy Act, 42 U.S.C. § 4322(2)
NEPA applies to agencies of the federal government, not to private parties such as applicants for NRC licenses; LBP-11-32, 74 NRC 666 (2011)
National Environmental Policy Act, 102(2)(C), 42 U.S.C. § 4332(2)(C)
agencies must prepare an environmental impact statement before approving any major federal action that will significantly affect the quality of the human environment; LBP-11-38, 74 NRC 830 (2011)
NEPA imposes procedural obligations on federal agencies proposing to take actions significantly affecting the quality of the human environment; LBP-11-39, 74 NRC 867-68 (2011)

NRC Staff must consult with and obtain the comments of any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved; LBP-11-26, 74 NRC 587 (2011)

National Historic Preservation Act, 106

the area of potential effect of a federal undertaking must be designated, and the lead federal agency must consult with the SHPO regarding the presence and protection of historic and cultural resources in the designated area, as well as any federally recognized Native American groups with an ancestral interest in the property, to determine if resources important to the tribe are present; LBP-11-26, 74 NRC 576 (2011)

National Historic Preservation Act, 16 U.S.C. § 470

all adverse effects to any NRHP-eligible historic or cultural resource must be considered during any federal undertaking, such as an NRC licensing action for a proposed uranium enrichment facility; LBP-11-26, 74 NRC 576 (2011)

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OTHERS

128 Cong. Rec. S17506 (Sept. 11, 1959) (Remark of Sen. Anderson)
there would be confusion and possible conflict between federal and state regulations and uncertainty on the part of the industry and possible jeopardy to the public health and safety if the Atomic Energy Act had continued to remain silent as to the regulatory role of the states; CLI-11-12, 74 NRC 474 n.44 (2011)

Fed. R. Evid. 201
judicial notice may be taken of any fact not subject to reasonable dispute in that it is either generally known within the territorial jurisdiction of the trial court or capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned; LBP-11-20, 74 NRC 101 n.56 (2011)

Federal-State Relationships in the Atomic Energy Field: Hearings Before the Joint Committee on Atomic Energy, 86th Cong. at 301 (1959) (Joint Committee Hearings) (testimony of Robert Lowenstein, Atomic Energy Commission, Office of the General Counsel)
the stated purpose of AEA § 274 is to clarify the respective responsibilities under the AEA of the states and the Commission with respect to the regulation of byproduct, source, and special nuclear materials; CLI-11-12, 74 NRC 472 (2011)

Levin, R., *A Blackletter Statement of Federal Administrative Law,* 54 Admin. L. Rev. 1, 44-45 (2003)
agencies can reach exactly the same result on a remanded issue as long as they rely on the correct view of a law that they previously misinterpreted, or as long as they explain themselves better or develop better evidence for their position; CLI-11-12, 74 NRC 469 n.20 (2011)

Mandelker, Daniel R., NEPA Law and Litigation §§ 1.1, 8.18 (2d ed. 2008)
NEPA applies to agencies of the federal government, not to private parties such as applicants for NRC licenses; LBP-11-32, 74 NRC 666 (2011)

N.J. Admin. Code § 7:28-12.3
license termination is permitted under limited restricted use for sites where only institutional controls are used or restricted use for sites where both institutional controls and engineered controls are used; CLI-11-12, 74 NRC 494 (2011)

N.J. Admin. Code § 7:28-6.1(a)
public doses for all Part 20 radiation protection programs must be as low as reasonably achievable and a basic radiation protection public dose standard of 100 mrem per year is required; CLI-11-12, 74 NRC 482 (2011)

N.J. Admin. Code § 7:28-12.8, 12.9, 12.10
New Jersey has two restricted-release options that permit license termination under specified soil concentration levels; CLI-11-12, 74 NRC 494 (2011)

N.J. Admin. Code § 7:28-12.8(a)(1), 12.9, 12.10, and 12.11
licensee is required to show, using concentration tables or dose modeling, that, for unrestricted use remedial action, limited restricted use remedial action, or a restricted use remedial action, the total effective dose equivalent to members of the public would not be more than 15 mrem per year; CLI-11-12, 74 NRC 482 (2011)

N.J. Admin. Code § 7:28-12.8(b) and (c)
radioactively contaminated ground and surface water must be remediated in accordance with New Jersey water quality requirements; CLI-11-12, 74 NRC 483 (2011)

N.J. Admin. Code § 7:28-12.10(d)
New Jersey has adopted license termination requirements that incorporate more conservative dose calculation methodologies than NRC requirements; CLI-11-12, 74 NRC 482-83 (2011)
N.J. Admin. Code §§ 7:28-12.10(e), 7:28-12.11(e)
New Jersey has adopted license termination requirements that incorporate more conservative dose calculation methodologies than NRC requirements; CLI-11-12, 74 NRC 483 (2011)
N.J. Admin. Code § 7:28-12.11
licensees may petition for restricted release using alternative remediation standards, under which license termination is based on dose modeling instead of soil concentration levels; CLI-11-12, 74 NRC 494 (2011)
N.J. Admin. Code § 7:28-12.11(e)
restricted-release decommissioning requires that doses to members of the public resulting from a simultaneous and complete failure of institutional and engineering controls not exceed 100 mrem per year; CLI-11-12, 74 NRC 495 (2011)
Report by the Joint Committee on Atomic Energy: Amendments to the Atomic Energy Act of 1954, as amended, with Respect to Cooperation with the States, H.R. Rep. No. 86-1125, 86th Cong., 1st Sess. at 3
in enacting AEA § 274, Congress acknowledged the significant interest of the states in regulating radiation hazards that do not involve interstate, national, or international considerations; CLI-11-12, 74 NRC 473 (2011)
Report by the Joint Committee on Atomic Energy: Amendments to the Atomic Energy Act of 1954, as amended, with Respect to Cooperation with the States, H.R. Rep. No. 86-1125, 86th Cong., 1st Sess. at 8
in enacting AEA § 274, Congress acknowledged the significant interest of the states in regulating radiation hazards that are local and limited in nature; CLI-11-12, 74 NRC 473 (2011)
Selected Materials on Federal-State Cooperation in the Atomic Energy Field, 86th Cong., 1st Sess. at 27 (1959)
the Commission may enter into an agreement under AEA § 274a with any state if the conditions of state certification and Commission finding of adequacy and compatibility are met; CLI-11-12, 74 NRC 473 (2011)
2A Singer, Norman J., Statutes and Statutory Construction § 47:38, at 393-95 (6th ed. 2000)
applying principles of statutory interpretation, the board declined to insert into the regulations a requirement to specify damage states or the number and magnitude of fires and explosions with Commission intent to the contrary and without a showing that such a requirement is unavoidable or imperatively required; CLI-11-9, 74 NRC 242 (2011)

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ABEYANCE OF APPEAL
given the posture of the case, the Commission declines to decide a petition for review but will allow petitioner to file a motion to reinstate its petition should the proceeding be reactivated at a future time; CLI-11-15, 74 NRC 815 (2011)
ABEYANCE OF PROCEEDING
petitioner's request to hold the license renewal proceeding in abeyance until the Commission resolves petitioner's request to suspend the proceeding pending evaluation of the Fukushima accident is denied because the Commission has denied the suspension request; LBP-11-35, 74 NRC 701 (2011)
post-9/11 abeyance of a proceeding was denied where the proceeding was at an early stage, there was no risk of immediate threat to public health and safety, there were non-terrorism-related contentions to be considered, and the only harm to petitioner would be inevitable litigation costs; CLI-11-5, 74 NRC 141 (2011)
the Commission may consider requests to suspend or hold proceedings in abeyance pursuant to its inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 141 (2011)
ACCIDENTS
to waive the generic assessment in NRC regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in this license renewal proceeding, the Commission must conclude that the rule's strict application would not serve the purpose for which it was adopted; CLI-11-11, 74 NRC 427 (2011)
See also Design Basis Accident
ACCIDENTS, SEVERE
although the likelihood of severe accidents occurring is lower than that for design basis accidents, consequences of severe accidents are generally greater; LBP-11-38, 74 NRC 817 (2011)
an accident sequence with a probability conservatively estimated at 2.0×10^{-7} per reactor year is remote and speculative for the purposes of NEPA; LBP-11-38, 74 NRC 817 (2011)
applications for certified reactor designs include a probabilistic risk assessment for severe accidents; LBP-11-38, 74 NRC 817 (2011)
COL applications must include a description and plans for implementation of the guidance and strategies required by section 50.54(hh)(2) for severe accident mitigation; CLI-11-9, 74 NRC 233 (2011)
contention that the frequency of occurrence of severe accidents is erroneously underestimated should have been raised at the outset of the license renewal proceeding and thus is untimely; LBP-11-35, 74 NRC 701 (2011)
Fukushima-related petitions for suspension of proceeding and rescission of regulations that make generic conclusions about environmental impacts of severe reactor and spent fuel pool accidents and that preclude consideration of those issues in individual licensing proceedings are denied; LBP-11-39, 74 NRC 862 (2011)
generic analysis remains appropriate for spent fuel pool accidents in license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
severe accidents are reactor accidents more severe than design basis accidents and involve substantial damage to the reactor core; LBP-11-38, 74 NRC 817 (2011)
where initial decisions have been issued, the record should not be reopened to take evidence on some accident-related issue unless the party seeking reopening shows that there is significant new evidence, not included in the record, that materially affects the decision; CLI-11-5, 74 NRC 141 (2011)

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ADJUDICATORY PROCEEDINGS
See Abeyance of Proceeding; Combined License Proceedings; Dismissal of Proceeding; High-Level Waste Repository Proceeding; Independent Spent Fuel Storage Installation Proceedings; License Renewal Proceedings; Operating License Proceedings; Operating License Renewal Proceedings; Suspension of Proceeding; Termination of Proceeding
ADMINISTRATIVE PROCEDURE ACT
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visual impact of operation of a uranium enrichment facility on the quality of recreational experience is discussed; LBP-11-26, 74 NRC 499 (2011)
AFFIDAVITS
absence of a competent affidavit deprives the board of the ability or opportunity to substantively consider whether a materially different result would be obtained as is required by the regulatory reopening standards; LBP-11-23, 74 NRC 287 (2011)
an expert's affidavit supporting a motion to reopen must supply the factual and legal foundation for assertions that the reopening criteria are satisfied; LBP-11-20, 74 NRC 65 (2011)
each of the criteria for a motion to reopen must be separately addressed in an affidavit, with a specific explanation of why it has been met; LBP-11-35, 74 NRC 701 (2011)
evidence to support a motion to reopen must be relevant, material, and reliable; LBP-11-23, 74 NRC 287 (2011)
factual and/or technical bases for the claim that the reopening criteria have been met must address each of the criteria separately, with a specific explanation of why it has been met; LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011)
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 10 C.F.R. 2.326(a) have been satisfied; CLI-11-8, 74 NRC 214 (2011); LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011); LBP-11-35, 74 NRC 701 (2011)
motions to reopen shall set forth such facts as would be admissible in evidence and shall show affirmatively that the affiant is competent to testify to the matters stated therein; LBP-11-23, 74 NRC 287 (2011)
petitioner's assertion that recriticality is demonstrated by the relative quantities of radionuclides released is not self-evident and is clearly of the class of statements that must be supported by expert opinion; LBP-11-23, 74 NRC 287 (2011)
supporting affidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; CLI-11-8, 74 NRC 214 (2011); LBP-11-35, 74 NRC 701 (2011)
to meet the waiver standard, the party seeking a waiver must attach an affidavit that, among other things, states with particularity the special circumstances claimed to justify the waiver or exception requested; CLI-11-11, 74 NRC 427 (2011)
AGING MANAGEMENT
a commitment to implement an aging management plan that NRC finds is consistent with the GALL Report constitutes one acceptable method for compliance, but does not insulate such an approach from challenge by an intervenor, and is not binding on a licensing board in an adjudication; LBP-11-20, 74 NRC 65 (2011)
a license renewal applicant is compelled to implement safety-related severe accident mitigation alternatives that deal with aging management; LBP-11-17, 74 NRC 11 (2011)
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 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; CLI-11-11, 74 NRC 427 (2011)
amendment to aging management plan extended the AMP for medium-voltage cables to also cover low-voltage cables; LBP-11-20, 74 NRC 65 (2011)

an operating license may be renewed if NRC finds, among other things, that actions have been identified and have been or will be taken to manage the effects of aging during the period of extended operation on the functionality of certain identified structures and components; CLI-11-11, 74 NRC 427 (2011)
applicants must demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation, at a detailed component and structure level, rather than at a more generalized system level; LBP-11-21, 74 NRC 115 (2011)
challenges to section 50.54(hh)(2) are neither germane to age-related degradation nor unique to the license renewal period; LBP-11-21, 74 NRC 115 (2011)
conceptual issues such as operational history, quality assurance, quality control, management competence, and human factors are excluded from license renewal review in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components; CLI-11-11, 74 NRC 427 (2011)
emergency planning is neither germane to age-related degradation nor unique to the period covered by a license renewal application; LBP-11-35, 74 NRC 701 (2011)
inspection reports could be seen as objective evidence that applicant may not adequately manage aging in the future; CLI-11-11, 74 NRC 427 (2011)
license renewal review is a limited one, focused on aging management issues; CLI-11-5, 74 NRC 141 (2011)
license renewal safety review is limited to the matters specified in 10 C.F.R. Part 54, which focus on the management of aging for certain systems, structures, and components, and the review of time-limited aging analyses; LBP-11-21, 74 NRC 115 (2011)
many safety questions that relate to plant aging become important during the extended renewal term since the design of some components may have been based upon a service lifetime of only 40 years; LBP-11-21, 74 NRC 115 (2011)
NRC Staff's obligations under Part 51 and NEPA are not limited to only those severe accident mitigation alternatives that address aging management; LBP-11-17, 74 NRC 11 (2011)
NRC's license renewal process concerns a particularized and limited inquiry into the potential impacts of an additional 20 years of nuclear power plant operation, not day-to-day operational issues; LBP-11-21, 74 NRC 115 (2011)
the "reasonable assurance" standard for aging management programs does not require a 95% confidence level of compliance; LBP-11-18, 74 NRC 29 (2011)
the aging-based safety review set out in Part 54 is analytically separate from Part 51's environmental inquiry and does not in any sense restrict NEPA; LBP-11-17, 74 NRC 11 (2011)
the NEPA review in license renewal proceedings is not limited to aging management-related issues; LBP-11-17, 74 NRC 11 (2011)
to evaluate an operating license renewal application, the NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54 and the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 11 (2011)
AGREEMENT STATE PROGRAMS
a state's regulations are not inherently unfair because they may be designed to effectuate a state-desired regulatory outcome; CLI-11-12, 74 NRC 460 (2011)
Criterion 25 of NRC's policy statement does not relate to substantive standards or the regulatory outcome of a pending license application, even where a license application has been pending at the NRC for an extended period; CLI-11-12, 74 NRC 460 (2011)
if a regulated entity believes that a state's program, as implemented, is unlawful or contrary to public health and safety, it may raise its agreement-state performance concerns with NRC; CLI-11-12, 74 NRC 460 (2011)
litigation at NRC had actually reached the point of NRC approval of an onsite plan at the time of the transfer of authority to an agreement state; CLI-11-12, 74 NRC 460 (2011)
New Jersey's license termination regulations are not less protective than or incompatible with NRC's in making the terms of restricted release considerably more difficult than those for unrestricted release; CLI-11-12, 74 NRC 460 (2011)

NRC addresses agreement-state performance concerns through its Integrated Materials Performance Evaluation Program process or through an independent agreement-state performance concern evaluation, depending on the performance concern raised; CLI-11-12, 74 NRC 460 (2011)
NRC is authorized to enter into agreements with the governor of any state providing for transfer of regulatory authority to the state over specified categories of nuclear material; CLI-11-12, 74 NRC 460 (2011)
NRC may not, over the objections of a state desiring jurisdiction and for reasons other than health and safety or compatibility, retain regulatory authority over pending applications involving a nuclear materials category otherwise transferred to a state; CLI-11-12, 74 NRC 460 (2011)
NRC retains power under AEA § 274j to revoke agreements with states and to restore NRC regulatory authority; CLI-11-12, 74 NRC 460 (2011)
prior to entering into an agreement with a state, NRC must find that a state's regulatory program is adequate to protect the public health and safety with respect to the materials the state seeks to regulate, and compatible with NRC's program for regulation of such materials; CLI-11-12, 74 NRC 460 (2011)
state requests for limited agreements will be considered by NRC only if the state can identify discrete categories of material or classes of licensed activity that can be reserved to NRC authority without undue confusion to the regulated community or burden to NRC resources and can be applied logically and consistently to existing and future licensees over time; CLI-11-12, 74 NRC 460 (2011)
the mandatory language used in Atomic Energy Act § 274d is construed as requiring NRC to enter into an agreement for state regulation of the particular categories of nuclear materials that a state certifies it both desires to regulate and has established a program for, provided NRC finds the state's program to be adequate and compatible; CLI-11-12, 74 NRC 460 (2011)
the purpose of Criterion 25 of NRC's policy statement is to ensure that licensing records are transferred to and received by the new agreement state in an orderly manner that ensures that no pending licensing actions will be significantly delayed or that no records will be lost or misplaced as a result of the transition of authority; CLI-11-12, 74 NRC 460 (2011)

AGREEMENT STATES
states should be provided with flexibility in program implementation to accommodate individual state preferences, state legislative direction, and local needs and conditions, including the flexibility to incorporate more stringent, or similar, requirements; CLI-11-12, 74 NRC 460 (2011)

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air quality impacts of particulate matter are discussed; LBP-11-26, 74 NRC 499 (2011)
EPA also has granted authority to some states to implement, maintain, and enforce their own EPA-compliant air quality programs through State Ambient Air Quality Standards; LBP-11-26, 74 NRC 499 (2011)
EPA's National Ambient Air Quality Standards set maximum levels for air pollutants in the ambient air deemed to provide protection for human health and welfare; LBP-11-26, 74 NRC 499 (2011)
in parallel with NRC Staff's role under NEPA to assess environmental impacts, the Environmental Protection Agency possesses authority under the Clean Air Act to set numerical standards for air pollutants from emission sources; LBP-11-26, 74 NRC 499 (2011)
NRC Staff assesses air quality impacts as a matter of course, categorizing them as small, medium, or large; LBP-11-26, 74 NRC 499 (2011)
prediction of air dispersion based on defined parameters in the planetary boundary layer is discussed; LBP-11-26, 74 NRC 499 (2011)
surface roughness, albedo, and Bowen ratio inputs to the AERMOD model are discussed; LBP-11-26, 74 NRC 499 (2011)
the AERMOD model for demonstrating compliance with EPA regulations and for state air quality protection planning is discussed; LBP-11-26, 74 NRC 499 (2011)

ALARA
every reasonable effort must be made to maintain exposures to radiation as far below the dose limits in Part 20 as is practical consistent with the purpose for which the licensed activity is undertaken; CLI-11-12, 74 NRC 460 (2011)
the ALARA requirement in section 20.1101(b) applies to the dose criteria for license termination; CLI-11-12, 74 NRC 460 (2011)

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ALARA PRINCIPLE
as used in NRC regulations, ALARA does not mean as low as achievable as a comparison between achievable doses, but rather as low as reasonably achievable below the dose limits; CLI-11-12, 74 NRC 460 (2011)
either as a general regulatory principle or as used in NRC's license termination rule, the principle does not incorporate or call for any comparative analysis of doses from restricted and unrestricted release; CLI-11-12, 74 NRC 460 (2011)
small doses of radiation below dose limits, while safe and acceptable, may have some associated risk and should be reduced below limits when reasonable; CLI-11-12, 74 NRC 460 (2011)
the principle has been incorporated into the restricted-use portion of the license termination rule to screen out sites that should be removing contamination to achieve unrestricted use; CLI-11-12, 74 NRC 460 (2011)
AMENDMENT OF CONTENTIONS
a motion to file new or amended contentions must address the motion to reopen standards after an intervention petition has been denied; LBP-11-20, 74 NRC 65 (2011)
appellants may not amend their contentions on appeal; CLI-11-8, 74 NRC 214 (2011)
by filing proposed new or amended contention within the time specified in the initial scheduling order, petitioner satisfies timeliness requirements but would still have to satisfy the other requirements of section 2.309(f)(2) or the requirements of section 2.309(c), as well as the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); LBP-11-22, 74 NRC 259 (2011)
intervenor is not free to change the focus of its admitted contention, at will, as the litigation progresses; LBP-11-38, 74 NRC 817 (2011)
NRC preserves 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-11-22, 74 NRC 259 (2011)
petitioner may amend its contentions or file new contentions if there are data or conclusions in the NRC draft or final environmental impact statement or any supplements thereto, that differ significantly from the data or conclusions in applicant's documents; LBP-11-33, 74 NRC 675 (2011); LBP-11-34, 74 NRC 685 (2011)
reply briefs cannot be used to present entirely new facts or arguments in an attempt to reinvigorate thinly supported contentions; LBP-11-34, 74 NRC 685 (2011)
where an amended version of a dismissed contention was pending before the board, the board retains jurisdiction to decide whether to admit the proposed contention; LBP-11-22, 74 NRC 259 (2011)
AMENDMENT OF REGULATIONS
applying principles of statutory interpretation, the board declined to insert addition requirements into the regulations to specify damage states or the number and magnitude of fires and explosions with Commission intent to the contrary and without a showing that such a requirement is unavoidable or imperatively required; CLI-11-9, 74 NRC 233 (2011)
APPEAL PANEL
although the Atomic Safety and Licensing Appeal Panel is no longer in existence, the decisions of its appeals boards continue to be binding to the degree they concern a regulation or regulatory matter that has not been revised or otherwise materially altered; LBP-11-34, 74 NRC 685 (2011)
APPEALS
a board order is appealable when it disposes of a major segment of the case or terminates a party's right to participate; CLI-11-10, 74 NRC 251 (2011)
appellants seeking oral argument must show how oral argument will assist the Commission in reaching a decision; CLI-11-8, 74 NRC 214 (2011)
grant of summary disposition where other contentions are pending is not a final decision, and is appealable only upon a showing that the standards for interlocutory review have been met; CLI-11-14, 74 NRC 801 (2011)
in its discretion, the Commission may allow oral argument upon the request of a party made in a petition for review, brief on review, or upon its own initiative; CLI-11-8, 74 NRC 214 (2011)
parties may choose whether to submit a petition for review, an answer in support of the petition, or neither; CLI-11-14, 74 NRC 801 (2011)
petitions for review are allowed after a full or partial initial decision, both of which are considered final decisions; CLI-11-10, 74 NRC 251 (2011); CLI-11-14, 74 NRC 801 (2011)

section 2.311(d)(1) provides for appeals as of right on the question of whether a request for hearing should have been wholly denied; CLI-11-11, 74 NRC 427 (2011)
the procedural rule governing appeals in a 10 C.F.R. Part 2, Subpart J proceeding provides for review only in the limited circumstances prescribed in the rule; CLI-11-13, 74 NRC 635 (2011)
See also Abeyance of Appeal; Briefs, Appellate
APPEALS, INTERLOCUTORY
a partial initial decision is one rendered following an evidentiary hearing on one or more contentions, but that does not dispose of the entire matter; CLI-11-6, 74 NRC 203 (2011)
admission of a contention that might require further explanation of severe accident mitigation alternatives cost-benefit analysis did not have a pervasive and unusual effect on the litigation; CLI-11-6, 74 NRC 203 (2011)
allowing an environmental challenge to continue after the environmental impact statement has issued does not constitute a merits ruling that the Staff's review document is inadequate; CLI-11-6, 74 NRC 203 (2011)
appellate review of interlocutory licensing board orders is disfavored and will be undertaken as a discretionary matter only in extraordinary circumstances; CLI-11-10, 74 NRC 251 (2011)
because a board makes a disputed legal ruling does not necessarily warrant immediate Commission action; CLI-11-6, 74 NRC 203 (2011)
denial of summary disposition does not constitute a full or partial initial decision warranting immediate Commission review; CLI-11-10, 74 NRC 251 (2011)
denial of summary disposition neither threatens NRC Staff with immediate and serious irreparable impact that could not be alleviated through a petition for review of the presiding officer's final decision nor affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-11-10, 74 NRC 251 (2011)
expansion of issues for litigation that results from a board action does not have a pervasive and unusual effect on the litigation; CLI-11-10, 74 NRC 251 (2011)
grant of summary disposition on a particular contention is an interlocutory ruling appealable at the end of the case; CLI-11-6, 74 NRC 203 (2011)
labor and expense of pursuing litigation that petitioner sought to curtail do not constitute irreparable harm; CLI-11-10, 74 NRC 251 (2011)
piecemeal appeals during ongoing licensing board proceedings are generally disfavored; CLI-11-6, 74 NRC 203 (2011)
review of board rulings is permitted when petitioner demonstrates either that the ruling threatens the petitioner with immediate and irreparable harm or the ruling has a pervasive and unusual effect on the structure of the proceeding; CLI-11-6, 74 NRC 203 (2011)
the board's denial of a summary disposition motion did not constitute a de facto partial initial decision or a final decision on the merits, ripe for Commission review; CLI-11-6, 74 NRC 203 (2011)
APPELLATE REVIEW
in the absence of clear error or abuse of discretion, the Commission defers to its boards' rulings on such threshold issues; CLI-11-8, 74 NRC 214 (2011); CLI-11-9, 74 NRC 233 (2011)
parties seeking interlocutory review must show that the issue to be reviewed 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-11-14, 74 NRC 801 (2011)
review of a board's certified question that raises a significant and novel issue whose early resolution will materially advance the orderly disposition of the proceeding is granted; CLI-11-4, 74 NRC 1 (2011)
the adjudicatory record, board decision, and any Commission appellate decisions become, in effect, part of the final environmental impact statement; CLI-11-6, 74 NRC 203 (2011)
the basis for allowing immediate appellate review of partial initial decisions rests on prior appeal board decisions permitting review of a licensing board ruling that disposes of a major segment of the case or terminates a party's right to participate; CLI-11-14, 74 NRC 801 (2011)
the Commission will defer to a board's rulings on contention admissibility absent an error of law or abuse of discretion; CLI-11-11, 74 NRC 427 (2011)

the Commission will grant a petition for review at its discretion, giving due weight to the existence of a substantial question with respect to one or more of the considerations of 10 C.F.R. 2.341(b)(4)(i)-(v); CLI-11-9, 74 NRC 233 (2011)
where the Commission has a thorough written record containing adequate information on which to base a decision, there is no need for oral argument; CLI-11-8, 74 NRC 214 (2011)
with the board's termination of the proceeding, the board's interlocutory rulings on contention admissibility became ripe for appeal; CLI-11-9, 74 NRC 233 (2011)
APPLICANTS
applicant in a licensing proceeding must meet its burden of proof by a preponderance of the evidence; LBP-11-38, 74 NRC 817 (2011)
in denying an exemption request, Staff is required to inform applicant of the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
the time for applicant to request a hearing should be tolled until notice is issued if NRC Staff fails to provide the notice and hearing opportunity mandated by 10 C.F.R. 2.103(b); LBP-11-19, 74 NRC 61 (2011)
ASME CODE
a combined license application must describe the programs, and their implementation, necessary to ensure that systems and components meet the requirements of the ASME Boiler and Pressure Vessel Code and the ASME Code of Operation and Maintenance of Nuclear Power Plants in accordance with 10 C.F.R. 50.55a; CLI-11-8, 74 NRC 214 (2011)
requirements of section XI of the ASME Boiler and Pressure Vessel Code on inservice inspections are incorporated by reference in 10 C.F.R. 50.55a(b) and 50.55a(g)(4); CLI-11-8, 74 NRC 214 (2011)
ATOMIC ENERGY ACT
commercial licenses for utilization or production facilities for industrial or commercial purposes shall be issued according to the terms of section 103; LBP-11-25, 74 NRC 380 (2011)
extreme delay in the completion of Staff's environmental review, and thus the equal delay in hearing the Intervenors' claim of injury, raises issues of compliance with section 189a of the Atomic Energy Act; LBP-11-30, 74 NRC 627 (2011)
NRC has clear statutory authority to regulate the construction and operation of a uranium enrichment facility; LBP-11-26, 74 NRC 499 (2011)
NRC is authorized to enter into agreements with the governor of any state providing for transfer of regulatory authority to the state over specified categories of nuclear material; CLI-11-12, 74 NRC 460 (2011)
NRC is not granted the discretion to eliminate from the hearing, material issues in its licensing decision; LBP-11-22, 74 NRC 259 (2011)
NRC may not, over the objections of a state desiring jurisdiction and for reasons other than health and safety or compatibility, retain regulatory authority over pending applications involving a nuclear materials category otherwise transferred to a state; CLI-11-12, 74 NRC 460 (2011)
NRC retains power under section 274j to revoke agreements with states and to restore NRC regulatory authority; CLI-11-12, 74 NRC 460 (2011)
section 189a has been interpreted to require that the hearing must encompass all material factors bearing on the licensing decision raised by the requester; LBP-11-22, 74 NRC 259 (2011)
terminating an adjudication has significant implications for the rights of intervenors under section 189a; LBP-11-22, 74 NRC 259 (2011)
the Commission shall grant a hearing to and admit as a party to any licensing proceeding any person whose interest may be affected by the proceeding; LBP-11-22, 74 NRC 259 (2011); LBP-11-29, 74 NRC 612 (2011)
the Commission, but not a licensing board, has the power to address a protracted delay in the proceeding and to direct appropriate remedial measures; LBP-11-30, 74 NRC 627 (2011)
the mandatory language used in AEA § 274d is construed as requiring NRC to enter into an agreement for state regulation of the particular categories of nuclear materials that a state certifies it both desires to regulate and has established a program for, provided NRC finds the state's program to be adequate and compatible; CLI-11-12, 74 NRC 460 (2011)
to evaluate an operating license renewal application, NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and

components pursuant to 10 C.F.R. Part 54 and the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 11 (2011)
BACKFITTING
modification of or addition to systems, structures, components, or designs of a facility are included; LBP-11-17, 74 NRC 11 (2011)
NRC shall require backfitting of a facility only when it determines that there is a substantial increase in the overall protection of the public health and safety or the common defense and security and that the costs of implementation are justified in view of this increased protection; LBP-11-17, 74 NRC 11 (2011)
NRC Staff has authority to require implementation of non-aging-management severe accident mitigation alternatives through its current licensing basis backfit review under Part 50 or through setting conditions of the license renewal; LBP-11-17, 74 NRC 11 (2011)
BENEFIT-COST ANALYSIS
accounting for the meteorological patterns, atmospheric transport modeling, and data issues raised by intervenor cannot credibly alter which severe accident mitigation alternatives are potentially cost-beneficial to implement; LBP-11-18, 74 NRC 29 (2011)
adequacy of a SAMDA analysis is judged not by whether plainly better assumptions or methodologies could have been used or the analysis refined further but whether it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost-benefit conclusions for the SAMDA analysis; LBP-11-38, 74 NRC 817 (2011)
admission of a contention that might require further explanation of severe accident mitigation alternatives cost-benefit analysis did not have a pervasive and unusual effect on the litigation; CLI-11-6, 74 NRC 203 (2011)
contributions of the uranium fuel cycle must be evaluated and added to the environmental costs of a proposed new nuclear power plant; LBP-11-26, 74 NRC 499 (2011)
costs and benefits of the energy-efficient building code are essential to determine whether the adoption of the code should be included as an alternative; LBP-11-21, 74 NRC 115 (2011)
discussion of the economic costs and benefits of the proposed action and alternatives is required if such costs and benefits are essential for a determination regarding the inclusion of an alternative in the range of alternatives considered; LBP-11-21, 74 NRC 115 (2011)
for a proposed nuclear materials-related activity, commencement of construction relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance is grounds for denial of the authorization to conduct that activity; LBP-11-26, 74 NRC 499 (2011)
goal of a severe accident mitigation alternatives analysis is to identify potential changes to a nuclear power plant or its operations that might reduce the risk or likelihood or impact, or both, of a severe reactor accident for which the benefit of implementing the changes outweighs the cost of the implementation; LBP-11-18, 74 NRC 29 (2011)
if the cost of implementing a particular severe accident mitigation alternative is greater than its estimated benefit, the SAMA is not considered cost-beneficial to implement; LBP-11-33, 74 NRC 675 (2011)
initial eligibility for restricted release is determined; CLI-11-12, 74 NRC 460 (2011)
petitioner must approximate the relative cost and benefit of a challenged SAMA or provide at least some ballpark consequence and implementation costs should the SAMA be performed; CLI-11-11, 74 NRC 427 (2011)
scaling severe accident mitigation design alternatives implementation costs (inflation rate, regional cost-of-living adjustment, risk reduction factor) and implementation benefits (discount rate, power pricing data, power market effects, consumer impacts, power price spikes, loss of grid) is discussed; LBP-11-38, 74 NRC 817 (2011)
sea-breeze effect and hot-spot effect must cause the expected average offsite damages to increase by at least a factor of 2 for the next most costly severe accident mitigation alternative to be cost-effective; LBP-11-18, 74 NRC 29 (2011)
severe accident mitigation alternatives analysis is a cost-benefit analysis, not a direct safety analysis, and thus does not raise any exceptionally grave issues; LBP-11-23, 74 NRC 287 (2011)
sufficiency of the NRC's hard look at the benefits of severe accident mitigation alternatives in comparison to their costs is subject to litigation in a license renewal proceeding; LBP-11-17, 74 NRC 11 (2011)

the required level of demonstration by petitioners of cost-effectiveness of other severe accident mitigation alternatives is case and issue specific; LBP-11-35, 74 NRC 701 (2011)
BRIEFS
parties are expected to adhere to page-limit requirements, or timely seek leave for an enlargement of the page limitation; CLI-11-14, 74 NRC 801 (2011)
BRIEFS, APPELLATE
although the entire record is considered on appeal, including pleadings that appellants ask to be adopted by reference, the Commission's decision responds to the arguments made explicitly in the appellate brief; CLI-11-8, 74 NRC 214 (2011)
an issue on appeal is not properly briefed by incorporating by reference papers filed with the licensing board; CLI-11-8, 74 NRC 214 (2011)
appellants may not amend their contentions on appeal; CLI-11-8, 74 NRC 214 (2011)
appellants must clearly identify the errors in the decision below and ensure that their brief contains sufficient information and cogent argument to alert the other parties and the Commission to the precise nature of and support for their claims; CLI-11-8, 74 NRC 214 (2011)
briefs are limited to 30 pages, absent Commission order directing otherwise; CLI-11-8, 74 NRC 214 (2011)
briefs on appeal must conform to the requirements stated in section 2.341(c)(2); CLI-11-8, 74 NRC 214 (2011)
conclusory statement that appellants proved their position is not sufficient to show clear error or abuse of discretion on the part of the board; CLI-11-8, 74 NRC 214 (2011)
page limit for appellate briefs excludes tables of contents and citations, appropriate exhibits, and statutory or regulatory extracts; CLI-11-8, 74 NRC 214 (2011)
BURDEN OF PERSUASION
a heavier burden applies to motions to reopen than to proponents of contentions in ongoing proceedings; CLI-11-5, 74 NRC 141 (2011)
at the contention admissibility stage, the burden is on intervenors to demonstrate a deficiency in the application; CLI-11-9, 74 NRC 233 (2011)
intervention petitioner bears the burden of providing facts sufficient to establish its standing; LBP-11-21, 74 NRC 115 (2011)
NRC rules deliberately place a heavy burden on proponents of contentions, who must challenge aspects of license applications with specificity, backed up with substantive technical support, mere conclusions or speculation being insufficient; CLI-11-5, 74 NRC 141 (2011)
satisfying the reopening requirements is a heavy burden, and proponents mustf meet all of the requirements; LBP-11-20, 74 NRC 65 (2011)
BURDEN OF PROOF
applicant may bear the burden of proof on contentions asserting deficiencies in its environmental report and where the applicant becomes a proponent of a particular challenged position set forth in the environmental impact statement; LBP-11-38, 74 NRC 817 (2011)
for NEPA contentions, the burden of proof shifts to NRC Staff, because NRC, not applicant, bears the ultimate burden of complying with NEPA; LBP-11-38, 74 NRC 817 (2011)
CABLES
amendment to aging management plan extended the AMP for medium-voltage cables to also cover low-voltage cables; LBP-11-20, 74 NRC 65 (2011)
lack of clarity about which electrical cables might be subject to any saltwater environment, however high or low the concentration, and about the effects of and efforts to address this, is a level of concern sufficient to warrant further inquiry and exploration; LBP-11-20, 74 NRC 65 (2011)
CASE MANAGEMENT
boards must exercise all the powers necessary to control the prehearing and hearing process, to avoid delay, and to maintain order; LBP-11-22, 74 NRC 259 (2011)
boards must use the applicable Model Milestones in 10 C.F.R. Part 2, Appendix B as a starting point for the schedule, but the board shall make appropriate modifications based upon the circumstances of each case; LBP-11-22, 74 NRC 259 (2011)

boards should develop schedules that will provide a fair and expeditious procedure for resolving new or amended contentions that might be proposed during the course of the proceeding, not just those already admitted; LBP-11-22, 74 NRC 259 (2011)
NRC may impose reasonable requirements on new contentions when those requirements are related to legitimate agency goals such as avoiding needless duplication and delay; LBP-11-22, 74 NRC 259 (2011)
presiding officers have the duty to conduct a fair and impartial hearing according to law, to take appropriate action to control the prehearing and hearing process, to avoid delay and to maintain order, and have all the powers necessary to those ends; LBP-11-22, 74 NRC 259 (2011)
shortly after a hearing request has been granted, the board must set a schedule to govern the proceeding; LBP-11-22, 74 NRC 259 (2011)
the Atomic Energy Act does not grant NRC the discretion to eliminate from the hearing, material issues in its licensing decision; LBP-11-22, 74 NRC 259 (2011)
the Commission generally defers to the Board on case management issues; CLI-11-13, 74 NRC 635 (2011)
when establishing a schedule, boards are to consider NRC's interest in providing a fair and expeditious resolution of the issues sought to be admitted for adjudication, along with other factors; LBP-11-22, 74 NRC 259 (2011)
CERTIFICATE OF SERVICE
service of a filing is not complete until accompanied by a certificate of service and a request for oral argument; LBP-11-21, 74 NRC 115 (2011)
CERTIFICATION
depending on the quantity of material, Part 70 license applicants must submit either a decommissioning funding plan or a certification of financial assurance; CLI-11-4, 74 NRC 1 (2011)
financial assurance certification may state that the appropriate assurance will be obtained after the application has been approved and the license issued but before the receipt of licensed material; CLI-11-4, 74 NRC 1 (2011)
financial assurance certifications, which are used by applicants seeking to possess smaller quantities of material, are governed by 10 C.F.R. 70.25(b)(2); CLI-11-4, 74 NRC 1 (2011)
motions to admit new contentions must be rejected if they do not include a certification by movant's attorney or representative that movant has made a sincere effort to contact other parties and resolve the issues raised in the motion, and that movant's efforts have been unsuccessful; LBP-11-34, 74 NRC 685 (2011)
possession limits associated with a certification of financial assurance are set forth in 10 C.F.R. 70.25(d); CLI-11-4, 74 NRC 1 (2011)
See also Design Certification
CERTIFIED QUESTIONS
if on the basis of the petition, affidavit, and any response provided for in 2.758(b), the presiding officer determines that a prima facie showing has been made, the presiding officer shall, before ruling thereon, certify the matter directly to the Commission; CLI-11-11, 74 NRC 427 (2011)
review of a board's certified question that raises a significant and novel issue whose early resolution will materially advance the orderly disposition of the proceeding is granted; CLI-11-4, 74 NRC 1 (2011)
should a licensing board decision raise novel legal or policy questions, boards are to certify to the Commission those questions that would benefit from Commission consideration; CLI-11-5, 74 NRC 141 (2011); LBP-11-32, 74 NRC 654 (2011)
CIVIL PENALTIES
assessment of monetary penalty against U.S. Army for possession of depleted uranium without a license is denied; DD-11-5, 74 NRC 399 (2011)
CLEAN AIR ACT
in parallel with NRC Staff's role under NEPA to assess environmental impacts, the Environmental Protection Agency possesses authority under the Act to set numerical standards for air pollutants from emission sources; LBP-11-26, 74 NRC 499 (2011)
COMBINED LICENSE APPLICATION
an environmental report is required; CLI-11-5, 74 NRC 141 (2011)

applicant must describe the programs, and their implementation, necessary to ensure that systems and components meet the requirements of the ASME Boiler and Pressure Vessel Code and the ASME Code of Operation and Maintenance of Nuclear Power Plants in accordance with section 50.55a; CLI-11-8, 74 NRC 214 (2011)
applicant must provide a level of information on plans to manage and store low-level radioactive waste onsite sufficient to enable the Commission to conclude that the application will comply with 10 C.F.R. Part 20; CLI-11-10, 74 NRC 251 (2011)
COL applications must include a description and plans for implementation of the guidance and strategies required by section 50.54(hh)(2) for severe accident mitigation; CLI-11-9, 74 NRC 233 (2011)
evaluation of existing dose projection models or a dose assessment is not required by 10 C.F.R. 52.80(d) and 50.54(hh)(2); CLI-11-9, 74 NRC 233 (2011)
intervention petitioners may not challenge the adequacy of the safety evaluation report, but may file contentions challenging the combined license application based on new information in the SER; LBP-11-22, 74 NRC 259 (2011)
NRC's review of a COL application is the type of proposed action obliging Staff to prepare an environmental impact statement or a supplement thereto; LBP-11-39, 74 NRC 862 (2011)
postponing choice between several options for radioactive waste management, each of which is concretely stated and compliant with 10 C.F.R. 52.79(a), does not violate the regulation; LBP-11-31, 74 NRC 643 (2011)

COMBINED LICENSE PROCEEDINGS
a contested hearing is not required if no petitioner has satisfied the criteria for intervention; LBP-11-22, 74 NRC 259 (2011)
in making its findings, the Commission will treat as resolved those matters resolved in the issuance of a design certification rule; LBP-11-38, 74 NRC 817 (2011)
issues surrounding severe accident mitigation design alternatives that have been resolved by regulation may not be challenged in a combined license adjudication; CLI-11-6, 74 NRC 203 (2011)
the proper mechanism for raising Fukushima-related, application-specific concerns in ongoing combined license cases is to file a new contention, consistent with the applicable procedural rules; CLI-11-5, 74 NRC 141 (2011)

COMBINED LICENSES
NRC has the authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation; CLI-11-8, 74 NRC 214 (2011); CLI-11-10, 74 NRC 251 (2011)
section 50.54(hh)(2) applies to both current reactor licensees under Part 50 and new applicants for licenses under Part 52; LBP-11-21, 74 NRC 115 (2011)
to issue a combined license or entertain an application for a COL, the Commission cannot know or have reason to believe applicant is controlled by an alien, a foreign corporation, or a foreign government; LBP-11-25, 74 NRC 380 (2011)
to the extent NRC's review of the Fukushima accident leads to new rules applicable to any pending application, the Commission has sufficient authority and time to apply them to any new license that may be issued; CLI-11-5, 74 NRC 141 (2011)
with respect to new reactor licenses, the Commission has authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation; CLI-11-6, 74 NRC 203 (2011)

COMMISSIONERS, AUTHORITY
the Commission disfavors requests to invoke its inherent supervisory authority over adjudications; CLI-11-13, 74 NRC 635 (2011)
the Commission, but not a licensing board, has the power to address a protracted delay in the proceeding and to direct appropriate remedial measures; LBP-11-30, 74 NRC 627 (2011)

COMMON DEFENSE AND SECURITY
even substantial foreign funding or involvement where a foreign entity contributes 50% or more of the costs of constructing a reactor or participates in the project review and is consulted on policy and costs issues does not require a finding of foreign control, where safeguards ensure U.S. national defense and security; LBP-11-25, 74 NRC 380 (2011)

protecting against the threat of air attacks is not within licensees' responsibilities because a private security force cannot reasonably be expected to defend against such attacks and adequate protection is ensured through the actions of other federal agencies with defense capabilities and air-safety expertise; CLI-11-4, 74 NRC 1 (2011)

COMPLIANCE

a commitment to implement an aging management plan that NRC finds is consistent with the GALL Report constitutes one acceptable method for compliance; LBP-11-20, 74 NRC 65 (2011)

although NRC guidance documents are not legally binding, and compliance with them is not required, they describe an acceptable approach to compliance with NRC rules; CLI-11-4, 74 NRC 1 (2011)

conceptual issues such as operational history, quality assurance, quality control, management competence, and human factors are excluded from license renewal review in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components; CLI-11-11, 74 NRC 427 (2011)

current reactor licensees comply with the requirements of section 50.54(hh)(2) through conditions on their operating licenses; LBP-11-21, 74 NRC 115 (2011)

license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to ongoing compliance oversight activity; CLI-11-11, 74 NRC 427 (2011)

NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its current licensing basis, which can be adjusted by future Commission order or by modification to the facility's operating license outside the renewal proceeding; CLI-11-11, 74 NRC 427 (2011)

the "reasonable assurance" standard for aging management programs does not require a 95% confidence level of compliance; LBP-11-18, 74 NRC 29 (2011)

CONFIDENTIALITY

although NRC regulations mandate that a petition contain the name, address, and telephone number of petitioner, the Commission's hearing notice advises prospective petitioners not to include personal privacy information, such as home addresses or home phone numbers, in their filings; LBP-11-21, 74 NRC 115 (2011)

CONSIDERATION OF ALTERNATIVES

an environmental impact statement that contains an incomplete or misleading comparison of alternatives is deficient; LBP-11-21, 74 NRC 115 (2011)

because NEPA is premised on a rule of reason, NRC need only consider reasonable alternatives to a proposed action; LBP-11-26, 74 NRC 499 (2011)

consideration of alternatives is the heart of the environmental impact statement; LBP-11-35, 74 NRC 701 (2011)

discussion of the economic costs and benefits of the proposed action and alternatives is required if such costs and benefits are essential for a determination regarding the inclusion of an alternative in the range of alternatives considered; LBP-11-21, 74 NRC 115 (2011)

for an operating license renewal, if NRC Staff has not previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement or related supplement or in an environmental assessment, applicant's environmental report must contain a consideration of alternatives to mitigate severe accidents; LBP-11-18, 74 NRC 29 (2011)

license renewal applicant's environmental report must contain a consideration of alternatives for reducing adverse impacts for all Category 2 license renewal issues in Appendix B; LBP-11-21, 74 NRC 115 (2011)

reasonable alternatives under NEPA are limited to those alternatives that will bring about the ends of the proposed action; LBP-11-21, 74 NRC 115 (2011)

severe accident mitigation alternatives analysis is neither a worst-case nor a best-case impacts analysis, and the agency's obligations under NEPA are tempered by a practical rule of reason; LBP-11-18, 74 NRC 29 (2011)

the costs and benefits of the energy-efficient building code are essential to determine whether the adoption of an energy-efficient building code should be included as an alternative; LBP-11-21, 74 NRC 115 (2011)

use of mean consequences in severe accident mitigation alternatives analysis is consistent with NRC policy and precedent, whereas the 95th percentile approach is akin to a worst-case scenario analysis, which is not required by NRC; LBP-11-18, 74 NRC 29 (2011)
CONSTRUCTION
activities that are no longer considered "construction" are listed; LBP-11-26, 74 NRC 499 (2011)
"commencement of construction" includes clearing of land, excavation, or other substantial action that would adversely affect the natural environment of a site; LBP-11-26, 74 NRC 499 (2011)
for a proposed nuclear materials-related activity, commencement of construction relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance is grounds for denial of the authorization to conduct that activity; LBP-11-26, 74 NRC 499 (2011)
for power reactors, NRC Staff review should encompass emissions from the uranium fuel cycle as well as from construction and operation of the facility to be licensed; LBP-11-26, 74 NRC 499 (2011)
CONSTRUCTION OF MEANING
"shall" is a term of legal significance, in that it is mandatory or imperative, not merely precatory; CLI-11-12, 74 NRC 460 (2011)
CONSULTATION DUTY
areas of potential effect of a federal undertaking must be designated, and the lead federal agency must consult with the state historic preservation office regarding the presence and protection of historic and cultural resources in the designated area, as well as any federally recognized Native American groups with an ancestral interest in the property, to determine if resources important to the tribe are present; LBP-11-26, 74 NRC 499 (2011)
Fukushima-related contention is denied for failure of its proponent to contact the other parties to resolve the issue presented by the contention prior to its submission; LBP-11-37, 74 NRC 774 (2011)
motions to admit new contentions must be rejected if they do not include a certification by movant's attorney or representative that movant has made a sincere effort to contact other parties and resolve the issues raised in the motion, and that movant's efforts have been unsuccessful; LBP-11-34, 74 NRC 685 (2011)
CONTAINMENT DESIGN
assertions of a need to implement filtered vented containment are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
CONTENTIONS
a commitment to implement an aging management plan that NRC finds is consistent with the GALL Report constitutes one acceptable method for compliance, but does not insulate such an approach from challenge by an intervenor, and is not binding on a licensing board in an adjudication; LBP-11-20, 74 NRC 65 (2011)
although all environmental contentions may, in a general sense, ultimately challenge NRC's compliance with NEPA, NRC regulations expressly permit the lodging of contentions against an applicant's environmental report well before release of NRC's NEPA documents; LBP-11-38, 74 NRC 817 (2011)
although the Task Force Report on the Fukushima accident did not justify initiating a generic NEPA review, the Commission acknowledged that new and significant information may come to light that must be considered in individual reactor licensing proceedings; LBP-11-32, 74 NRC 654 (2011)
applicant may bear the burden of proof on contentions asserting deficiencies in its environmental report and where the applicant becomes a proponent of a particular challenged position set forth in the environmental impact statement; LBP-11-38, 74 NRC 817 (2011)
at the outset of proceedings, NEPA contentions are to be based on the applicant's environmental report; LBP-11-32, 74 NRC 654 (2011)
designation of a contention as a contention of omission is a means to limit its scope; CLI-11-11, 74 NRC 427 (2011)
in the future the Commission might provide relevant guidance regarding the proper time frame for adjudicating Fukushima-related contentions; LBP-11-39, 74 NRC 862 (2011)
once a petitioner successfully demonstrates standing, it will then be free to assert any contention, which, if proved, will afford it the relief it seeks; LBP-11-29, 74 NRC 612 (2011)
petitioner seeking a hearing must demonstrate standing and proffer at least one admissible contention; LBP-11-29, 74 NRC 612 (2011)

the Model Milestones permit intervenors' proposed late-filed contentions on SER and necessary NEPA documents to be filed within 30 days of the issuance of those documents; LBP-11-22, 74 NRC 259 (2011)
the proper mechanism for raising Fukushima-related, application-specific concerns in ongoing combined license cases is to file a new contention, consistent with the applicable procedural rules; CLI-11-5, 74 NRC 141 (2011)
See also Amendment of Contentions
CONTENTIONS, ADMISSIBILITY
a board erred in admitting a contention pertaining to a plant's safety culture; CLI-11-11, 74 NRC 427 (2011)
a hearing request or petition to intervene must set forth with particularity the contentions sought to be raised by satisfying six criteria; LBP-11-21, 74 NRC 115 (2011)
a license renewal environmental report is not required to include discussion of need for power; LBP-11-21, 74 NRC 115 (2011)
a motion to file new or amended contentions must address the motion to reopen standards after an intervention petition has been denied; LBP-11-20, 74 NRC 65 (2011)
a motion to reopen relating to a new contention must also satisfy the requirements for nontimely contentions in section 2.309(c); LBP-11-20, 74 NRC 65 (2011)
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 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; CLI-11-11, 74 NRC 427 (2011)
a request for hearing or petition for leave to intervene must explain proposed contentions with particularity; CLI-11-8, 74 NRC 214 (2011)
a request for hearing regarding a newly proffered contention cannot be admitted unless it satisfies the stringent standards for reopening the record; LBP-11-20, 74 NRC 65 (2011)
a safety evaluation report did not add a last piece of information, but merely compiled and organized preexisting information; CLI-11-8, 74 NRC 214 (2011)
absent a waiver, contentions challenging applicable statutory requirements or NRC regulations are not admissible; LBP-11-21, 74 NRC 115 (2011); LBP-11-35, 74 NRC 701 (2011)
absent documentary support, NRC has declined to assume that licensees will contravene its regulations; CLI-11-9, 74 NRC 233 (2011)
absent error of law or abuse of discretion, the Commission defers to licensing board rulings on contention admissibility; CLI-11-9, 74 NRC 233 (2011)
absent voluntary action by applicant to amend its environmental report, intervenor wishing to raise new or revised post-ER environmental concerns must await issuance of Staff's draft environmental impact statement; LBP-11-37, 74 NRC 774 (2011)
admission of a contention that might require further explanation of severe accident mitigation alternatives cost-benefit analysis did not have a pervasive and unusual effect on the litigation; CLI-11-6, 74 NRC 203 (2011)
admission of a management integrity contention relied on references to a serious incident involving shutdown of the reactor, management responsible for the incident remaining in place, and a purported climate of reprisals for bringing forward safety issues, and reference to at least one expert witness in support of the contention; CLI-11-11, 74 NRC 427 (2011)
admission of contentions that NRC may ultimately deal with generically through notice-and-comment rulemaking is precluded; LBP-11-32, 74 NRC 654 (2011)
all contentions, regardless of when they are filed, must satisfy the six criteria specified in 10 C.F.R. 2.309(f)(1)(i)-(vi); LBP-11-20, 74 NRC 65 (2011); LBP-11-32, 74 NRC 654 (2011); LBP-11-39, 74 NRC 862 (2011)
allowing an environmental challenge to continue after the environmental impact statement has issued does not constitute a merits ruling that the Staff's review document is inadequate; CLI-11-6, 74 NRC 203 (2011)
although a board may view petitioner's supporting information in a light favorable to the petitioner, it cannot do so by ignoring NRC contention admissibility rules, which require petitioner (not the board) to

supply all of the required elements for a valid intervention petition; LBP-11-20, 74 NRC 65 (2011); LBP-11-29, 74 NRC 612 (2011)
although sufficiency of the application and NRC Staff's environmental review of that application are proper targets of contentions, sufficiency of NRC Staff's safety review of the application is not; LBP-11-29, 74 NRC 612 (2011)
an enhancement to a program does not constitute new information sufficient to support a new contention; LBP-11-20, 74 NRC 65 (2011)
an exception to the general rule that NRC regulations are not subject to challenge in adjudicatory proceedings is provided; CLI-11-11, 74 NRC 427 (2011)
an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented; LBP-11-35, 74 NRC 701 (2011)
an NRC Information Notice that merely summarized information that was previously available is not new information upon which a new contention can be based; LBP-11-20, 74 NRC 65 (2011)
as a matter of law and logic, if applicant's enhanced monitoring program is inadequate, then applicant's unenhanced monitoring program was a fortiori inadequate, and intervenor had a regulatory obligation to challenge it in its original petition to intervene; LBP-11-20, 74 NRC 65 (2011)
as an alternative ground for excluding a NEPA terrorism contention, NRC Staff's determination in the generic environmental impact statement that the environmental impacts of a terrorist attack were bounded by those resulting from internally initiated events is sufficient to address the environmental impacts of terrorism; CLI-11-11, 74 NRC 427 (2011)
assertions of a need to implement filtered vented containment are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
at the admissibility stage, a board evaluates whether a petitioner has provided sufficient support to justify admitting the contention for further litigation; CLI-11-8, 74 NRC 214 (2011)
at the admissibility stage, it is simply not appropriate for boards to decide what additional information, if any, is necessary to cure a claimed deficiency in a license application; CLI-11-11, 74 NRC 427 (2011)
at the admissibility stage, parties must come forward with sufficiently detailed grievances to allow a board to conclude that genuine disputes exist justifying a commitment of adjudicatory resources; LBP-11-21, 74 NRC 115 (2011)
at the admissibility stage, petitioners need not marshal their evidence as though preparing for an evidentiary hearing; LBP-11-21, 74 NRC 115 (2011)
at the admissibility stage, the burden is on intervenors to demonstrate a deficiency in the application; CLI-11-9, 74 NRC 233 (2011)
bare assertions are insufficient to support a contention; CLI-11-11, 74 NRC 427 (2011)
bare assertions in a contention run afoul of NRC's intention to focus the hearing process and provide notice to the other parties; LBP-11-21, 74 NRC 115 (2011)
board admitted a contention on a conditional basis, pending Commission ruling on merits of petition for waiver of NRC regulations; CLI-11-11, 74 NRC 427 (2011)
boards do not adjudicate disputed facts at the contention admission stage; LBP-11-21, 74 NRC 115 (2011)
carry-over contentions must be subjected to especially careful scrutiny by the board at the prehearing stage; LBP-11-34, 74 NRC 685 (2011)
Category 1 issues are not subject to challenge in a relicensing proceeding, absent a waiver, because they involve environmental effects that are essentially similar for all plants and need not be assessed repeatedly on a site-specific basis; LBP-11-21, 74 NRC 115 (2011)
challenges to an applicant's or licensee's character require sufficient support; CLI-11-9, 74 NRC 233 (2011)
challenges to extensive damage mitigation guidelines are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
challenges to NRC's assumptions about operators' capability to mitigate an accident are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
challenges to NRC's excessive secrecy regarding accident mitigation measures are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)

challenges to NRC's previous rejection of petitioner's concerns regarding environmental impacts of high-density pool storage of spent fuel are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
challenges to section 50.54(hh)(2) are neither germane to age-related degradation nor unique to the license renewal period; LBP-11-21, 74 NRC 115 (2011)
challenges to the ABWR design certification are impermissible; LBP-11-38, 74 NRC 817 (2011)
challenges to the basic regulatory structure of the NRC's design basis and generic environmental impacts already assessed through rulemaking are inadmissible; LBP-11-32, 74 NRC 654 (2011)
challenges to the design of the nuclear power plant are outside the scope of the license renewal proceeding; LBP-11-23, 74 NRC 287 (2011)
challenging features of the AP1000 standard design is a matter for a design certification rulemaking, not a combined license proceeding; CLI-11-8, 74 NRC 214 (2011)
claims for relief from Fukushima-related events are premature; LBP-11-37, 74 NRC 774 (2011)
conceptual issues such as operational history, quality assurance, quality control, management competence, and human factors are excluded from license renewal review in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components; CLI-11-11, 74 NRC 427 (2011)
consideration of an admissible contention can be deferred, where appropriate, but an inadmissible one cannot; LBP-11-28, 74 NRC 604 (2011)
contention admissibility requirements are strict by design in order to help assure that the NRC hearing process will be appropriately focused upon disputes that can be resolved in the adjudication; LBP-11-29, 74 NRC 612 (2011)
contention copied from an unrelated license renewal proceeding is inadmissible because the two-sentence introduction does not refer to the license renewal application or environmental report at issue; LBP-11-34, 74 NRC 685 (2011)
contention dismissal based on mootness is a jurisdictional ruling, not a decision on the merits of the claim; LBP-11-22, 74 NRC 259 (2011)
contention fails to satisfy the good cause requirements of 10 C.F.R. 2.309(c)(i) because its foundational argument does not rest upon new and materially different information and could and should have been filed at the outset of the proceeding; LBP-11-35, 74 NRC 701 (2011)
contention is inadmissible for failure to show that a genuine dispute exists with applicant on a material issue of law or fact; LBP-11-33, 74 NRC 675 (2011)
contention pleading rules are designed to ensure that only well-defined issues are admitted for hearing and a board should not add material not raised by a petitioner in order to render a contention admissible; CLI-11-11, 74 NRC 427 (2011)
contention regarding limitations and phenomena that were widely known, and should have been known to intervenor, at the outset of the proceeding, and thus could have been raised long ago, is untimely; LBP-11-23, 74 NRC 287 (2011)
contention that indicates neither positive nor negative impact from proposed severe accident mitigation alternative implementation does not paint the required seriously different picture of the environmental landscape to reopen the record; LBP-11-35, 74 NRC 701 (2011)
contention that the frequency of occurrence of severe accidents is erroneously underestimated should have been raised at the outset of the license renewal proceeding and thus is untimely; LBP-11-35, 74 NRC 701 (2011)
contentions cannot be automatically discarded by a hearing board simply because they repeat contentions advanced in a different proceeding; LBP-11-34, 74 NRC 685 (2011)
contentions may challenge the adequacy of the review contained in the Staff's NEPA documents; LBP-11-22, 74 NRC 259 (2011)
contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report, or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner; LBP-11-29, 74 NRC 612 (2011)
contentions must be raised with sufficient detail to put the parties on notice of the issues to be litigated; CLI-11-11, 74 NRC 427 (2011)

contentions must include specific grievances beyond mere notice pleading; LBP-11-29, 74 NRC 612 (2011)
contentions that amount to an attack on applicable statutory requirements or represent a challenge to the basic structure of the Commission's regulatory process must be rejected; LBP-11-29, 74 NRC 612 (2011)
contentions that challenge applicant's compliance with the loss-of-large-areas requirements of 10 C.F.R. 50.54(hh)(2) are not admissible because they are not within the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
contentions that neither explain how the application is inadequate nor identify which sections of the application are inadequate are inadmissible; LBP-11-21, 74 NRC 115 (2011)
during pendency of remand, intervenors 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; LBP-11-20, 74 NRC 65 (2011)
emergency planning is neither germane to age-related degradation nor unique to the period covered by a license renewal application; LBP-11-35, 74 NRC 701 (2011)
entertaining contentions in a license renewal proceeding that challenge the current licensing basis would be both unnecessary and wasteful, given ongoing agency oversight, review, and enforcement; LBP-11-21, 74 NRC 115 (2011)
evaluation of a contention at the admissibility stage should not be confused with evaluation at the merits stage; CLI-11-8, 74 NRC 214 (2011)
even when a proposed new contention is not found timely, it may be admitted if it meets a balancing of the eight nontimely filing factors; LBP-11-39, 74 NRC 862 (2011)
facts and issues raised in a contention are not in controversy and subject to a full evidentiary hearing unless the proposed contention is admitted; CLI-11-8, 74 NRC 214 (2011)
failure of petitioner to cite even a single specific deficiency in the application precludes satisfaction of the specificity requirement of 10 C.F.R. 2.309(f)(1)(vi); LBP-11-29, 74 NRC 612 (2011)
failure to comply with any of the contention pleading requirements precludes admission of a contention; LBP-11-21, 74 NRC 115 (2011)
for a reopening motion to be timely presented, movant must show that the issue sought to be raised could not have been raised earlier; LBP-11-20, 74 NRC 65 (2011)
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-11-21, 74 NRC 115 (2011)
for an admissible contention, petitioners do not have to prove outright that a SAMA analysis was deficient; CLI-11-11, 74 NRC 427 (2011)
for contentions that fall within the facility's current licensing basis, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 115 (2011)
for management integrity and character to be a viable contention, there must be a direct and obvious relationship between these issues and the challenged licensing action; CLI-11-8, 74 NRC 214 (2011)
Fukushima-related contention based on a Staff Requirements Memorandum is inadmissible because the SRM does not define or impose any new requirements arising from the Fukushima accident and thus fails to establish a genuine dispute on a material issue of law or fact; LBP-11-37, 74 NRC 774 (2011)
Fukushima-related contention is denied for failure of its proponent to contact the other parties to resolve the issue presented by the contention prior to its submission; LBP-11-37, 74 NRC 774 (2011)
Fukushima-related contention is denied for failure to reference any specific portion of the application at issue; LBP-11-37, 74 NRC 774 (2011)
Fukushima-related contention is denied for failure to show the contention is within the scope of the proceeding or is material to the findings NRC must make to support the requested licensing action; LBP-11-37, 74 NRC 774 (2011)
Fukushima-related contentions were dismissed as premature; LBP-11-34, 74 NRC 685 (2011); LBP-11-36, 74 NRC 768 (2011); LBP-11-39, 74 NRC 862 (2011)
generic analysis remains appropriate for spent fuel pool accidents in license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)

if a contention as originally pleaded did not satisfy 10 C.F.R. 2.309(f)(1), a reply cannot remediate the deficiency by introducing, for the first time, references to a genuine dispute with the license application at issue; LBP-11-34, 74 NRC 685 (2011)
if a contention is based upon new information, it must meet the standards of 10 C.F.R. 2.309(f)(2); LBP-11-35, 74 NRC 701 (2011)
if a proposed new contention is not timely under section 2.309(f)(2)(iii), then proponent must address the eight criteria of 10 C.F.R. 2.309(c)(1); LBP-11-32, 74 NRC 654 (2011)
if good cause for late filing is not shown, boards may still permit the filing, but petitioner or intervenor must make a strong showing on the other factors; LBP-11-32, 74 NRC 654 (2011)
if reopening standards are inapplicable, or if reopening criteria have been satisfied, a new contention must also meet the standards for contention admissibility; LBP-11-35, 74 NRC 701 (2011)
in an ongoing proceeding in which a hearing petition has been granted and there are contentions pending for merits resolution, intervenors must satisfy two sets of requirements to gain the admission of a newly proffered contention; LBP-11-37, 74 NRC 774 (2011)
in making contention admissibility decisions, boards appropriately apply their technical and legal expertise to evaluate the proposed contention and its support; CLI-11-8, 74 NRC 214 (2011)
inspection reports could be seen as objective evidence that applicant may not adequately manage aging in the future; CLI-11-11, 74 NRC 427 (2011)
intervenor's challenge to NRC's compliance with NEPA in light of the NRC's Fukushima Task Force Report is premature; LBP-11-33, 74 NRC 675 (2011)
intervenors may not impose an additional requirement that is not present in a regulation; CLI-11-9, 74 NRC 233 (2011)
intervenors must assert a sufficiently specific challenge that demonstrates that further inquiry is warranted; CLI-11-9, 74 NRC 233 (2011)
intervenors must demonstrate a genuine dispute suitable for evidentiary hearing; LBP-11-28, 74 NRC 604 (2011)
intervenors' speculation that further review of certain issues might change some conclusions in the FSAR does not justify restarting the hearing process; LBP-11-20, 74 NRC 65 (2011)
intervention petition is denied for failure to proffer an admissible contention; LBP-11-21, 74 NRC 115 (2011)
intervention petitioners may not challenge the adequacy of the safety evaluation report, but may file contentions challenging the combined license application based on new information in the SER; LBP-11-22, 74 NRC 259 (2011)
intervention petitions must be filed within 60 days based on the documents then in existence, meaning that the petition must be based on the documents submitted with the application; LBP-11-22, 74 NRC 259 (2011)
issuance of a Staff Requirements Memorandum directing Staff to implement "without delay" the recommendations of the Fukushima Task Force does not render contentions admissible; LBP-11-36, 74 NRC 768 (2011)
issues surrounding severe accident mitigation design alternatives that have been resolved by regulation may not be challenged in a combined license adjudication; CLI-11-6, 74 NRC 203 (2011)
it is intervention petitioner's responsibility to put others on notice as to the issues it seeks to litigate in a proceeding; CLI-11-11, 74 NRC 427 (2011); LBP-11-35, 74 NRC 701 (2011)
lack of clarity about which electrical cables might be subject to any saltwater environment, however high or low the concentration, and about the effects of and efforts to address this, is a level of concern sufficient to warrant further inquiry and exploration; LBP-11-20, 74 NRC 65 (2011)
license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to ongoing compliance oversight activity; CLI-11-11, 74 NRC 427 (2011)
licensing boards have commonly afforded intervenors the opportunity to propose new contentions to challenge the new information, even though no contention is pending; LBP-11-22, 74 NRC 259 (2011)
litigability of the adequacy of applicant's efforts to address current operational issues is excluded from a license renewal proceeding; CLI-11-11, 74 NRC 427 (2011)
materiality of a SAMA contention is based on whether it purports to show that an additional SAMA should have been identified as potentially cost-beneficial; CLI-11-11, 74 NRC 427 (2011)
mere notice pleading is insufficient for contention admission; LBP-11-21, 74 NRC 115 (2011)

motion to admit a new contention arguing that applicant's environmental report fails to satisfy NEPA because it does not address findings and recommendations raised by Task Force Report on the Fukushima Dai-ichi accident is denied as premature and insufficiently focused on the license renewal application; LBP-11-28, 74 NRC 604 (2011)
motions to admit new contentions must be rejected if they do not include a certification by movant's attorney or representative that movant has made a sincere effort to contact other parties and resolve the issues raised in the motion, and that movant's efforts have been unsuccessful; LBP-11-34, 74 NRC 685 (2011)
new contention is inadmissible because it neither points to nor references any specific portion of the application that is disputed; LBP-11-35, 74 NRC 701 (2011)
new contentions are deemed timely if filed within 30 days of the date when the new and material information on which they are based first became available; CLI-11-8, 74 NRC 214 (2011); LBP-11-39, 74 NRC 862 (2011)
new contentions may be admitted as long as they meet the timeliness criteria in 10 C.F.R. 2.309(f)(2) or the nontimely contention criteria in section 2.309(c)(1) and fulfill the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); LBP-11-39, 74 NRC 862 (2011)
new contentions must satisfy the six requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi); LBP-11-34, 74 NRC 685 (2011)
new contentions on the safety and environmental implications of the NRC Task Force Report on the Fukushima Dai-ichi accident are premature and must be denied on that basis without regard to any other considerations; LBP-11-27, 74 NRC 591 (2011)
no rule or regulation of the Commission, or any provision thereof, concerning the licensing of production and utilization facilities, source material, special nuclear material, or byproduct material is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; CLI-11-8, 74 NRC 214 (2011)
NRC regulations and case law already provide clear and uniform standards to determine the timeliness of motions to add new contentions on the Fukushima accident; LBP-11-32, 74 NRC 654 (2011)
NRC rules deliberately place a heavy burden on proponents of contentions, who must challenge aspects of license applications with specificity, backed up with substantive technical support, mere conclusions or speculation being insufficient; CLI-11-5, 74 NRC 141 (2011); LBP-11-35, 74 NRC 701 (2011)
once parties demonstrate standing, they will then be free to assert any contention, which, if proven, will afford them the relief they seek; LBP-11-21, 74 NRC 115 (2011)
other than hypothesizing that there will be a failure of the nuclear reactor vessel because of increased stress brought by the proposed license amendment request, the contention does not provide sufficient information to show that a genuine dispute exists; LBP-11-29, 74 NRC 612 (2011)
parties may seek leave of the board to file new contentions that challenge the sufficiency of Staff's NEPA documents where information on which new contentions are based was not previously available and is materially different than information previously available and has been submitted in a timely fashion based on the availability of the subsequent information; LBP-11-39, 74 NRC 862 (2011)
parties with new and significant information that could undermine the rationale for a Commission regulation must seek a rulemaking instead of challenging the regulation in a particular proceeding unless the information uniquely applies to a given adjudication; LBP-11-35, 74 NRC 701 (2011)
petitioner cannot rest its contentions on bare assertions and speculation; LBP-11-21, 74 NRC 115 (2011)
petitioner does not have to prove its contentions at the admissibility stage; LBP-11-21, 74 NRC 115 (2011)
petitioner fails to specifically explain why a materially different result would have been likely had information currently available from the Fukushima accident been considered ab initio in the severe accident mitigation alternatives analysis or why that information presents a significant safety or environmental issue; LBP-11-35, 74 NRC 701 (2011)
petitioner must approximate the relative cost and benefit of a challenged SAMA or provide at least some ballpark consequence and implementation costs should the SAMA be performed; CLI-11-11, 74 NRC 427 (2011)
petitioner proffers no new information on station blackout or mitigation measures, and the events therefore cannot form the basis for an assertion of timeliness of a motion to reopen; LBP-11-35, 74 NRC 701 (2011)

petitioner's assertion that applicant's environmental report must be supplemented to take account of allegedly new and significant information is, as a procedural matter, unfounded and must be rejected; LBP-11-33, 74 NRC 675 (2011)
petitioner's assertion that recriticality is demonstrated by the relative quantities of radionuclides released is not self-evident and is clearly of the class of statements that must be supported by expert opinion; LBP-11-23, 74 NRC 287 (2011)
petitioner's attempt to tie NEPA environmental justice claim to Fukushima Task Force report is an improper effort to interpose concerns that could have been raised at the outset of the proceeding; LBP-11-37, 74 NRC 774 (2011)
petitioners may not raise in adjudicatory proceedings contentions attacking the agency's rules and regulations or contentions that are the subject of ongoing rulemakings; LBP-11-29, 74 NRC 612 (2011)
petitions that lack alleged facts or expert opinions to support the contentions are inadmissible; LBP-11-29, 74 NRC 612 (2011)
portion of a contention asserting that applicant failed to consider the results of a particular study in its SAMA analysis is admissible; CLI-11-11, 74 NRC 427 (2011)
post-9/11 motion to reopen satisfied rules for reopening the record and for late-filed contentions, but contention involving a license amendment request for reconfiguring a spent fuel pool was inadmissible; CLI-11-5, 74 NRC 141 (2011)
potential to broaden or delay a proceeding may not be relied on to exclude a contention because NRC has a duty to consider new and significant information that arises before it makes its licensing decisions; LBP-11-35, 74 NRC 701 (2011)
proponents of contentions must challenge aspects of license applications with specificity, backed up with substantive technical support, mere conclusions or speculation being insufficient, but an even heavier burden applies to motions to reopen; LBP-11-35, 74 NRC 701 (2011)
providing a brief explanation of the basis for a contention is but one of the six requirements for establishing that a contention is admissible; LBP-11-34, 74 NRC 685 (2011)
rarely should basis for a contention require more than a sentence or two; LBP-11-34, 74 NRC 685 (2011)
relevant issues for an additional 20 years of reactor plant operation differ from those when a reactor plant is first built and licensed; LBP-11-21, 74 NRC 115 (2011)
requiring petitioners to proffer additional and conclusive support for the effect of their proposed contention would improperly require boards to adjudicate the merits of contentions before admitting them; LBP-11-21, 74 NRC 115 (2011); LBP-11-25, 74 NRC 380 (2011)
rules on contention admissibility are strict by design; LBP-11-21, 74 NRC 115 (2011); LBP-11-22, 74 NRC 259 (2011)
safety culture, operational history, quality assurance, quality control, management competence, human factors, and emergency planning issues are beyond the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
section 2.309(c)(vii) weighs heavily against admission of a contention because the addition of a hearing on its subject matter will unduly broaden the issues and materially delay the proceeding; LBP-11-35, 74 NRC 701 (2011)
should requirements for reopening the record be satisfied, the requirements for untimely contentions must also be satisfied, as well as the contention admissibility criteria of section 2.309(f)(1); LBP-11-35, 74 NRC 701 (2011)
showing necessary to demonstrate that a materially different result in the outcome of the severe accident mitigation alternatives analysis would be or would have been likely had the newly proffered evidence been considered initially is discussed; LBP-11-35, 74 NRC 701 (2011)
speculation by an expert cannot form the basis for admission of a contention on the basis of the matter being exceptionally grave; LBP-11-20, 74 NRC 65 (2011)
standards are deliberately strict, and any contention that does not satisfy NRC requirements will be rejected; CLI-11-8, 74 NRC 214 (2011)
standards for admission of new contentions are reviewed; LBP-11-25, 74 NRC 380 (2011)
sufficiency of the NRC's hard look at the benefits of severe accident mitigation alternatives in comparison to their costs is subject to litigation in a license renewal proceeding; LBP-11-17, 74 NRC 11 (2011)
support required for a contention necessarily will depend on the issue sought to be litigated; CLI-11-11, 74 NRC 427 (2011)

suppositions/speculation regarding effectiveness of hydrogen control mechanisms are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
the board applied the late-filing standards to a post-9/11 contention related to the risk of a terrorist attack on the ISFSI and found the contention timely but denied admission of both the safety and environmental aspects of the contention; CLI-11-5, 74 NRC 141 (2011)
the Commission will defer to a board's rulings on contention admissibility absent an error of law or abuse of discretion; CLI-11-11, 74 NRC 427 (2011)
the Commission will grant a petition for review at its discretion, giving due weight to the existence of a substantial question with respect to one or more of the considerations of 10 C.F.R. 2.341(b)(4)(i)-(v); CLI-11-9, 74 NRC 233 (2011)
the scope of a contention is limited to the issues of law and fact pleaded with particularity and any factual and legal material in support thereof; LBP-11-38, 74 NRC 817 (2011)
the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; CLI-11-8, 74 NRC 214 (2011); LBP-11-20, 74 NRC 65 (2011); LBP-11-22, 74 NRC 259 (2011); LBP-11-35, 74 NRC 701 (2011)
the standard for determining whether a materially different result would be obtained is measured using the Commission's test of whether it has been shown that a motion for summary disposition could be defeated; LBP-11-20, 74 NRC 65 (2011)
there simply would be no end to NRC licensing proceedings if petitioners could ignore timeliness requirements and add new contentions at their convenience based on information that could have formed the basis for a timely contention at the outset of the proceeding; LBP-11-20, 74 NRC 65 (2011)
timely new contentions challenging the sufficiency of Staff's NEPA documents may be filed where data or conclusions in these documents differ significantly from data or conclusions in previous versions of these documents or in the applicant's environmental report; LBP-11-39, 74 NRC 862 (2011)
timely new or amended contentions may be admitted if they meet three pleading requirements; LBP-11-32, 74 NRC 654 (2011)
to be admissible, each contention must satisfy six pleading requirements; LBP-11-29, 74 NRC 612 (2011)
to demonstrate a significant safety issue, petitioners must establish either that uncorrected errors endanger safe plant operation, or that there has been a breakdown of the quality assurance program sufficient to raise legitimate doubt as to the plant's capability of being operated safely; LBP-11-35, 74 NRC 701 (2011)
to show a genuine dispute with applicant on a material issue of law or fact, a contention must include references to specific portions of the application that the petitioner disputes and the supporting reasons for each dispute; CLI-11-9, 74 NRC 233 (2011)
to the extent petitioner believes there are existing management competence questions that merit immediate action, then its remedy is to direct the Staff's attention to those matters by filing a request for action in accordance with 10 C.F.R. 2.206; CLI-11-11, 74 NRC 427 (2011)
to the extent that petitioner challenges the generic environmental impact statement, its remedy is a petition for rulemaking or a petition for a waiver of the rules based on circumstances; CLI-11-11, 74 NRC 427 (2011)
to waive the generic assessment in NRC regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in this license renewal proceeding, the Commission must conclude that the rule's strict application would not serve the purpose for which it was adopted; CLI-11-11, 74 NRC 427 (2011)
until NRC defines and imposes on licensees new requirements arising from the Fukushima events, such requirements are highly speculative; LBP-11-33, 74 NRC 675 (2011)
until NRC Staff issues its draft or final environmental impact statement, it cannot plausibly be argued that the document is inadequate or otherwise fails to satisfy NEPA; LBP-11-33, 74 NRC 675 (2011)
where a contention alleges a deficiency or error in the application, the deficiency or error must have some independent health and safety significance; LBP-11-23, 74 NRC 287 (2011)
where a motion to reopen relates to a contention not previously in controversy, the motion must demonstrate that the balance of the nontimely filing factors in section 2.309(c) favors granting the motion to reopen; LBP-11-20, 74 NRC 65 (2011)

where a supplemental environmental impact statement is being prepared, intervenor may submit proposed new contentions based on new information, including new information in the SER and Staff NEPA documents; LBP-11-22, 74 NRC 259 (2011)
where an amended version of a dismissed contention was pending before the board, the board retains jurisdiction to decide whether to admit the proposed contention; LBP-11-22, 74 NRC 259 (2011)
where the time for filing contentions had expired in a given case, no new TMI-related contentions would be accepted absent a showing of good cause and a balancing of the late-filing factors; CLI-11-5, 74 NRC 141 (2011)
whether a proposed alternative method for estimating a macroscopic frequency of occurrence of a severe offsite radiological release should have been used in the severe accident mitigation alternatives analysis could have been raised when the original license renewal application was submitted and thus is not timely; LBP-11-35, 74 NRC 701 (2011)
with the board's termination of the proceeding, the board's interlocutory rulings on contention admissibility became ripe for appeal; CLI-11-9, 74 NRC 233 (2011)
CONTENTIONS, LATE-FILED
a licensing board's dismissal of all pending contentions on mootness grounds due to new information ordinarily would terminate the proceeding, but new contentions could be filed on new information before termination of the proceeding; LBP-11-22, 74 NRC 259 (2011)
a motion to file new or amended contentions must address the motion to reopen standards after an intervention petition has been denied; LBP-11-20, 74 NRC 65 (2011)
a motion to reopen that relates to a contention not previously in controversy among the parties must also satisfy the requirements for nontimely contentions in section 2.309(c); CLI-11-8, 74 NRC 214 (2011); LBP-11-23, 74 NRC 287 (2011)
a party that has successfully intervened in a licensing proceeding may propose new contentions for litigation until the license is issued; LBP-11-22, 74 NRC 259 (2011)
a request for hearing regarding a newly proffered contention cannot be admitted unless it satisfies the stringent standards for reopening the record; LBP-11-20, 74 NRC 65 (2011)
a safety evaluation report did not add a last piece of information, but merely compiled and organized preexisting information; CLI-11-8, 74 NRC 214 (2011)
all contentions, regardless of when they are filed must satisfy the six criteria specified in 10 C.F.R. 2.309(f)(1)(i)-(vi); LBP-11-20, 74 NRC 65 (2011); LBP-11-32, 74 NRC 654 (2011)
an enhancement to a program does not constitute new information sufficient to support a new contention; LBP-11-20, 74 NRC 65 (2011)
an exceptionally grave issue may be considered in the discretion of the presiding officer even if untimely presented; LBP-11-35, 74 NRC 701 (2011)
an NRC Information Notice that merely summarized information that was previously available is not new information upon which a new contention can be based; LBP-11-20, 74 NRC 65 (2011)
any changes in NRC rules post-9/11 that might bear on license renewal reviews could be addressed via late-filed contentions; CLI-11-5, 74 NRC 141 (2011)
as a matter of law and logic, if applicant's enhanced monitoring program is inadequate, then applicant's unenhanced monitoring program was a fortiori inadequate, and intervenor had a regulatory obligation to challenge it in its original petition to intervene; LBP-11-20, 74 NRC 65 (2011)
boards should develop schedules that will provide a fair and expeditious procedure for resolving new or amended contentions that might be proposed during the course of the proceeding, not just those already admitted; LBP-11-22, 74 NRC 259 (2011)
by filing proposed new or amended contention within the time specified in the initial scheduling order, petitioner satisfies timeliness requirements but would still have to satisfy the other requirements of section 2.309(f)(2) or the requirements of section 2.309(c), as well as the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); LBP-11-22, 74 NRC 259 (2011)
contention fails to satisfy the good cause requirements of 10 C.F.R. 2.309(c)(i) because its foundational argument does not rest on new and materially different information and could and should have been filed at the outset of the proceeding; LBP-11-35, 74 NRC 701 (2011)
contention regarding limitations and phenomena that were widely known, and should have been known to intervenor, at the outset of the proceeding, and thus could have been raised long ago, is untimely; LBP-11-23, 74 NRC 287 (2011)

contention that the frequency of occurrence of severe accidents is erroneously underestimated should have been raised at the outset of the license renewal proceeding and thus is untimely; LBP-11-35, 74 NRC 701 (2011)
even when a proposed new contention is not found timely, it may be admitted if it meets a balancing of the eight nontimely filing factors; LBP-11-39, 74 NRC 862 (2011)
filing of new contentions based on the SER and Staff NEPA documents is expressly contemplated by the Model Milestones; LBP-11-22, 74 NRC 259 (2011)
for a reopening motion to be timely presented, movant must show that the issue sought to be raised could not have been raised earlier; LBP-11-20, 74 NRC 65 (2011)
good cause for late filing is given the greatest weight in a section 2.309(c) analysis; LBP-11-23, 74 NRC 287 (2011); LBP-11-32, 74 NRC 654 (2011)
if a contention is based upon new information, it must meet the standards of 10 C.F.R. 2.309(f)(2); LBP-11-35, 74 NRC 701 (2011)
if a proposed new contention is not timely under section 2.309(f)(2)(iii), then the proponent must address the eight criteria of 10 C.F.R. 2.309(c)(1); LBP-11-32, 74 NRC 654 (2011)
if good cause for late filing is not shown, boards may still permit the filing, but petitioner or intervenor must make a strong showing on the other factors; LBP-11-32, 74 NRC 654 (2011)
if Intervenors file a new or amended contention, with supporting materials, within 60 days after pertinent information first becomes available, then the contention will be deemed timely filed and intervenors will not have to satisfy the late-filing requirements of 10 C.F.R. 2.309(c) or the requirements for reopening the record; LBP-11-22, 74 NRC 259 (2011)
if new information becomes available that, e.g., an endangered species has been living on the site or that the facility has been leaking tritium into the groundwater, then a new contention alleging that the environmental report as originally filed did not comply with Part 51 may be filed; LBP-11-32, 74 NRC 654 (2011)
if reopening standards are inapplicable, or if reopening criteria have been satisfied, a new contention must also meet the standards for contention admissibility; LBP-11-35, 74 NRC 701 (2011)
in an ongoing proceeding in which a hearing petition has been granted and there are contentions pending for merits resolution, intervenors must satisfy two sets of requirements to gain the admission of a newly proffered contention; LBP-11-37, 74 NRC 774 (2011)
intervenor may propose new contentions based on the Fukushima accident, the SER, the new SEIS, or other sources of new and materially different information, provided that it does so promptly after the new information becomes available and that it successfully fulfills the general contention admissibility requirements; LBP-11-22, 74 NRC 259 (2011)
licensing boards have commonly afforded intervenors the opportunity to propose new contentions to challenge new information, even though no contention is pending; LBP-11-22, 74 NRC 259 (2011)
motions seeking admission of new or amended contentions must be filed within 30 days of the date the information that forms the basis for the contention becomes available; CLI-11-8, 74 NRC 214 (2011)
new contention is inadmissible because it neither points to nor references any specific portion of the application that is disputed; LBP-11-35, 74 NRC 701 (2011)
new contentions filed after the record has closed must satisfy the timeliness requirement of either 10 C.F.R. 2.309(f)(2) or 2.309(c), and the admissibility requirements of section 2.309(f)(1); LBP-11-22, 74 NRC 259 (2011); LBP-11-39, 74 NRC 862 (2011)
new contentions on the safety and environmental implications of the NRC Task Force Report on the Fukushima Dai-ichi accident are premature and must be denied on that basis without regard to any other considerations; LBP-11-27, 74 NRC 591 (2011)
new environmental contentions may be filed if data or conclusions in the draft or final environmental impact statement differ significantly from the data or conclusions in the environmental report; LBP-11-32, 74 NRC 654 (2011); LBP-11-33, 74 NRC 675 (2011)
NRC preserves 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-11-22, 74 NRC 259 (2011)
petitioner must act reasonably and promptly after learning of the new information on which its motion to reopen is based; LBP-11-23, 74 NRC 287 (2011)

petitioner proffers no new information on station blackout or mitigation measures, and the events therefore cannot form the basis for an assertion of timeliness of a motion to reopen; LBP-11-35, 74 NRC 701 (2011)
petitioners may amend their contentions or file new contentions if the supplemental draft environmental impact statement differs significantly from the data or conclusions in applicant's documents; LBP-11-34, 74 NRC 685 (2011)
post-9/11 motion to reopen satisfied rules for reopening the record and for late-filed contentions, but contention involving a license amendment request for reconfiguring a spent fuel pool was inadmissible; CLI-11-5, 74 NRC 141 (2011)
rationale for NRC's policy of generally disfavoring the filing of new contentions at the eleventh hour of an adjudication is based on the doctrine of finality, which states that at some point, an adjudicatory proceeding must come to an end; LBP-11-20, 74 NRC 65 (2011)
section 2.309(c)(vii) weighs heavily against admission of a contention because the addition of a hearing on its subject matter will unduly broaden the issues and materially delay the proceeding; LBP-11-35, 74 NRC 701 (2011)
standards for admission of new contentions are reviewed; LBP-11-25, 74 NRC 380 (2011)
the board applied the late-filing standards to a post-9/11 contention related to the risk of a terrorist attack on the ISFSI and found the contention timely but denied admission of both the safety and environmental aspects of the contention; CLI-11-5, 74 NRC 141 (2011)
the Model Milestones permit the filing of proposed late-filed contentions on the Safety Evaluation Report and necessary National Environmental Policy Act documents within 30 days of the issuance of those documents; LBP-11-22, 74 NRC 259 (2011)
the presiding officer has discretion to consider an exceptionally grave issue even if untimely presented; LBP-11-20, 74 NRC 65 (2011)
the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; CLI-11-8, 74 NRC 214 (2011); LBP-11-20, 74 NRC 65 (2011); LBP-11-22, 74 NRC 259 (2011)
there simply would be no end to NRC licensing proceedings if petitioners could ignore timeliness requirements and add new contentions at their convenience based on information that could have formed the basis for a timely contention at the outset of the proceeding; LBP-11-20, 74 NRC 65 (2011)
timely new contentions may be filed with leave of the presiding officer if information on which they are based was not previously available and is materially different than information previously available and they have been submitted in a timely fashion based on the availability of the subsequent information; LBP-11-25, 74 NRC 380 (2011)
when a motion to reopen is untimely, the section 2.326(a)(1) "exceptionally grave" test supplants the section 2.326(a)(2) "significant safety or environmental issue" test; CLI-11-8, 74 NRC 214 (2011)
where a motion to reopen relates to a contention not previously in controversy, the motion must demonstrate that the balance of the nontimely filing factors in section 2.309(c) favors granting the motion to reopen; LBP-11-20, 74 NRC 65 (2011)
where a motion to reopen relates to a contention not previously in controversy, the motion must demonstrate that the balance of the nontimely filing factors of 10 C.F.R. 2.309(c) favors granting the motion to reopen; LBP-11-23, 74 NRC 287 (2011); LBP-11-35, 74 NRC 701 (2011)
where a supplemental environmental impact statement is being prepared, intervenor may submit proposed new contentions based on new information, including new information in the SER and Staff NEPA documents; LBP-11-22, 74 NRC 259 (2011)
where initial decisions have been issued, the record should not be reopened to take evidence on some accident-related issue unless the party seeking reopening shows that there is significant new evidence, not included in the record, that materially affects the decision; CLI-11-5, 74 NRC 141 (2011)
where the time for filing contentions had expired in a given case, no new TMI-related contentions would be accepted absent a showing of good cause and a balancing of the late-filing factors; CLI-11-5, 74 NRC 141 (2011)
whether a proposed alternative method for estimating a macroscopic frequency of occurrence of a severe offsite radiological release should have been used in the severe accident mitigation alternatives analysis could have been raised when the original license renewal application was submitted and thus is not timely; LBP-11-35, 74 NRC 701 (2011)

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CONTESTED LICENSE APPLICATIONS
a contested hearing is not required if no petitioner has satisfied the criteria for intervention; LBP-11-22, 74 NRC 259 (2011)
COUNCIL ON ENVIRONMENTAL QUALITY
NRC looks to CEQ regulations for guidance, but is not bound by them; CLI-11-11, 74 NRC 427 (2011)
NRC, as an independent regulatory agency, is not bound by those portions of CEQ NEPA regulations that have a substantive impact on the way in which the Commission performs its regulatory functions; LBP-11-35, 74 NRC 701 (2011)
COUNCIL ON ENVIRONMENTAL QUALITY GUIDELINES
CEQ has recognized that information may be unavoidably incomplete or unavailable, and that under those circumstances, a final environmental impact statement can overcome this deficiency if it states that fact, explains how the missing information is relevant, sets forth the existing information, and evaluates the environmental impacts to the best of the agency's ability; CLI-11-11, 74 NRC 427 (2011)
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petitioner's assertion that recriticality is demonstrated by the relative quantities of radionuclides released is not self-evident and is clearly of the class of statements that must be supported by expert opinion; LBP-11-23, 74 NRC 287 (2011)
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all adverse effects to any historic or cultural resource eligible for listing on the National Register must be considered during any federal undertaking; LBP-11-26, 74 NRC 499 (2011)
areas of potential effect of a federal undertaking must be designated, and the lead federal agency must consult with the state historic preservation office regarding the presence and protection of historic and cultural resources in the designated area, as well as any federally recognized Native American groups with an ancestral interest in the property, to determine if resources important to the tribe are present; LBP-11-26, 74 NRC 499 (2011)
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entertaining contentions in a license renewal proceeding that challenge the current licensing basis would be both unnecessary and wasteful, given ongoing agency oversight, review, and enforcement; LBP-11-21, 74 NRC 115 (2011)
for contentions that fall within the facility's CLB, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 115 (2011)
litigability of the adequacy of applicant's efforts to address current operational issues is excluded from a license renewal proceeding; CLI-11-11, 74 NRC 427 (2011)
NRC shall require backfitting of a facility only when it determines that there is a substantial increase in the overall protection of the public health and safety or the common defense and security and that the costs of implementation are justified in view of this increased protection; LBP-11-17, 74 NRC 11 (2011)
NRC Staff has authority to require implementation of non-aging-management severe accident mitigation alternatives through its CLB backfit review under Part 50 or through setting conditions of license renewal; LBP-11-17, 74 NRC 11 (2011)
NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its current licensing basis, which can be adjusted by future Commission order or by modification to the facility's operating license outside the renewal proceeding; CLI-11-11, 74 NRC 427 (2011)
the CLB includes licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as

well as licensee commitments documented in NRC safety evaluations or licensee event reports; LBP-11-21, 74 NRC 115 (2011)
the CLB of an operating license shall continue during the license renewal period, but these conditions may be supplemented or amended as necessary to protect the environment during the term of the renewed license and will be derived from information contained in the supplement to the environmental report, as analyzed and evaluated in the NRC record of decision; LBP-11-17, 74 NRC 11 (2011)
the CLBs includes plant-specific design-basis information as documented in the most recent final safety analysis report; LBP-11-21, 74 NRC 115 (2011)
DEADLINES
a notice failing to contain a specific time limit for administrative review, as required by federal regulations, does not trigger a time bar; LBP-11-19, 74 NRC 61 (2011)
a reply must be filed within 7 days after the filing of answers to an intervention petition; LBP-11-21, 74 NRC 115 (2011)
if intervenors file a new or amended contention, with supporting materials, within 60 days after pertinent information first becomes available, then the contention will be deemed timely filed and intervenors will not have to satisfy the late-filing requirements of 10 C.F.R. 2.309(c) or the requirements for reopening the record; LBP-11-22, 74 NRC 259 (2011)
if NRC Staff finds that an application does not comply with regulatory requirements, it must inform applicant in writing of the nature of any deficiencies or the reason for the proposed denial and the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
if the 20-day deadline for requesting a hearing in 10 C.F.R. 2.103(b) applies, NRC Staff's failure to comply with its own responsibilities under that provision bars Staff from invoking it; LBP-11-19, 74 NRC 61 (2011)
in denying an exemption request, Staff is required to inform applicant of the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
intervention petitions must be filed within 60 days based on the documents then in existence, meaning that the petition must be based on the documents submitted with the application; LBP-11-22, 74 NRC 259 (2011)
new contentions are deemed timely if filed within 30 days of the date when the new and material information on which they are based first became available; LBP-11-39, 74 NRC 862 (2011)
parties' other professional obligations do not relieve them of their obligations to meet regulatory deadlines; LBP-11-34, 74 NRC 685 (2011)
the Model Milestones permit intervenors' proposed late-filed contentions on SER and necessary NEPA documents to be filed within 30 days of the issuance of those documents; LBP-11-22, 74 NRC 259 (2011)
the time for applicant to request a hearing should be tolled until notice is issued if NRC Staff fails to provide the notice and hearing opportunity mandated by 10 C.F.R. 2.103(b); LBP-11-19, 74 NRC 61 (2011)
where applicant has raised sufficient question as to the appropriate deadline, the board may conclude that it would be unfair to penalize applicant on account of what might be ambiguity in NRC's own regulations; LBP-11-19, 74 NRC 61 (2011)
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allowing an environmental challenge to continue after the environmental impact statement has issued does not constitute a merits ruling that the Staff's review document is inadequate; CLI-11-6, 74 NRC 203 (2011)
boards do not adjudicate disputed facts at the contention admission stage; LBP-11-21, 74 NRC 115 (2011)
contention dismissal based on mootness is a jurisdictional ruling, not a decision on the merits of the claim; LBP-11-22, 74 NRC 259 (2011)
evaluation of a contention at the contention admissibility stage should not be confused with evaluation at the merits stage; CLI-11-8, 74 NRC 214 (2011)
requiring petitioners to proffer additional and conclusive support for the effect of their proposed contention would improperly require boards to adjudicate the merits of contentions before admitting them; LBP-11-21, 74 NRC 115 (2011); LBP-11-25, 74 NRC 380 (2011)

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DECISIONS
although the Atomic Safety and Licensing Appeal Panel is no longer in existence, the decisions of its appeals boards continue to be binding to the degree they concern a regulation or regulatory matter that has not been revised or otherwise materially altered; LBP-11-34, 74 NRC 685 (2011)
See Initial Decisions; Partial Initial Decisions; Record of Decision
DECOMMISSIONING
a benefit-cost analysis is used to determine initial eligibility for restricted release; CLI-11-12, 74 NRC 460 (2011)
agreement state license termination regulations are not less protective than or incompatible with NRC's in making the terms of restricted release considerably more difficult than those for unrestricted release; CLI-11-12, 74 NRC 460 (2011)
dose limit for license termination is a constraint within the public dose limit of 25 mrem per year to members of the public; CLI-11-12, 74 NRC 460 (2011)
if institutional controls fail and engineered barriers have degraded over a period of time, the dose to a member of the public will not exceed 100 mrem per year, or 500 mrem per year under certain circumstances, and is as low as reasonably achievable; CLI-11-12, 74 NRC 460 (2011)
litigation at NRC has actually reached the point of NRC approval of an onsite plan at the time of the transfer of authority to an agreement state; CLI-11-12, 74 NRC 460 (2011)
NRC explicitly expressed a preference for unrestricted release in adopting its license termination rule; CLI-11-12, 74 NRC 460 (2011)
NRC regulations neither explicitly nor implicitly require a comparison of the levels of protection afforded by the unrestricted and restricted decommissioning options; CLI-11-12, 74 NRC 460 (2011)
unrestricted release and restricted release are both available as independent regulatory options that would provide adequate protection to the public health and safety if the applicable dose and other criteria are met; CLI-11-12, 74 NRC 460 (2011)
DECOMMISSIONING FUNDING
an acceptable trustee includes an appropriate state or federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; CLI-11-4, 74 NRC 1 (2011)
applicant's commitment to provide a letter of credit issued by a financial institution whose operations are regulated and examined by a federal or state agency is sufficient to satisfy decommissioning funding assurance requirements; CLI-11-4, 74 NRC 1 (2011); LBP-11-26, 74 NRC 499 (2011)
because it has chosen a surety method, licensee must ensure that the letter of credit is payable to a trust established for decommissioning costs; CLI-11-4, 74 NRC 1 (2011)
certification of financial assurance may state that the appropriate assurance will be obtained after the application has been approved and the license issued but before the receipt of licensed material; CLI-11-4, 74 NRC 1 (2011)
certifications of financial assurance, which are used by applicants seeking to possess smaller quantities of material, are governed by 10 C.F.R. 70.25(b)(2); CLI-11-4, 74 NRC 1 (2011)
contracts that licensee is relying on for decommissioning funding must be reported to NRC; DD-11-7, 74 NRC 787 (2011)
federal financial regulatory agencies regularly examine banks within their jurisdiction, generally at 12- or 18-month intervals; CLI-11-4, 74 NRC 1 (2011)
financial assurance requirements are structured according to the quantity of material that will be authorized for possession and use; CLI-11-4, 74 NRC 1 (2011)
financial tests for parent company guarantees and self-guarantees require that an independent certified public accountant review the data used in the financial test and require that the licensee inform NRC within 90 days of any matters that cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test; CLI-11-4, 74 NRC 1 (2011)
licensees may use a site-specific methodology to determine the decommissioning funding needed as long as the amount is greater than the decommissioning cost estimate derived from formulas in 10 C.F.R. 50.75(c); DD-11-7, 74 NRC 787 (2011)
licensees must use the formulas in 10 C.F.R. 50.75(c) to estimate the minimum funding amount needed for radiological decommissioning; DD-11-7, 74 NRC 787 (2011)

NRC reserves the right to review, as necessary, the rate of accumulation of decommissioning funds and to take additional actions, as appropriate on a case-by-case basis, to ensure an adequate accumulation of decommissioning funds; DD-11-7, 74 NRC 787 (2011)
NRC Staff authorization permitting applicant to defer execution of any final letters of credit for decommissioning financial assurance until after a license is issued but before receipt of licensed material might be problematic; LBP-11-26, 74 NRC 499 (2011)
possession limits associated with a certification of financial assurance are set forth in 10 C.F.R. 70.25(d); CLI-11-4, 74 NRC 1 (2011)
power reactor licensees must report decommissioning funding assurance information to NRC at least once every 2 years; DD-11-7, 74 NRC 787 (2011)
request for action against reactor facilities that have projected shortfalls in their decommissioning trust funds is denied in part and granted in part; DD-11-7, 74 NRC 787 (2011)
request for an exemption that would enable licensee to provide decommissioning funding on a forward-looking, incremental basis, at a rate proportional to the then-current decontamination and decommissioning liability is granted; CLI-11-4, 74 NRC 1 (2011)
request for hearing on Staff denial of permission to use an alternative method for demonstrating decommissioning funding assurance is granted; LBP-11-19, 74 NRC 61 (2011)
Staff's deference to the expertise of other federal and state agencies to set and monitor the financial soundness of institutions issuing letters of credit is reasonable; CLI-11-4, 74 NRC 1 (2011)
the source of funds for operating and maintenance expenses would be unaffected by a transaction for decommissioning funding; CLI-11-4, 74 NRC 1 (2011)

DECOMMISSIONING FUNDING PLANS
applicant seeking a specific license for a uranium enrichment facility is required to submit a plan consistent with 10 C.F.R. 70.25(e); CLI-11-4, 74 NRC 1 (2011)
deferral of execution of the financial instruments until after the license has issued is not allowed for a uranium enrichment facility; CLI-11-4, 74 NRC 1 (2011)
depending on the quantity of material, Part 70 license applicants must submit either a decommissioning funding plan or a certification of financial assurance; CLI-11-4, 74 NRC 1 (2011)
each plan must include a signed original of the instrument obtained to provide financial assurance for decommissioning at the time the plan is submitted; CLI-11-4, 74 NRC 1 (2011)

DEFERRAL OF HEARING
until the safety evaluation report and Staff NEPA documents have been issued, a licensing board is generally prohibited from holding the hearing on the license application; LBP-11-22, 74 NRC 259 (2011)

DEFERRAL OF RULING
consideration of an admissible contention can be deferred, where appropriate, but an inadmissible one cannot; LBP-11-28, 74 NRC 604 (2011)

DEFINITIONS
ALARA is defined as every reasonable effort to maintain exposures to radiation as far below the dose limits in Part 20 as is practical consistent with the purpose for which the licensed activity is undertaken; CLI-11-12, 74 NRC 460 (2011)
an entity is under foreign ownership, control, or domination whenever a foreign interest has the power, direct or indirect, whether or not exercised, to direct or decide matters affecting the management or operations of the applicant; LBP-11-25, 74 NRC 380 (2011)
"closed record" refers to a record developed at an evidentiary hearing; LBP-11-22, 74 NRC 259 (2011)
"commencement of construction" includes clearing of land, excavation, or other substantial action that would adversely affect the natural environment of a site; LBP-11-26, 74 NRC 499 (2011)
cumulative impacts are those that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions; LBP-11-26, 74 NRC 499 (2011)
design or procedural modifications that could mitigate the consequences of a severe accident are known as severe accident mitigation alternatives; LBP-11-38, 74 NRC 817 (2011)
direct impacts are those caused by the action that is the subject of the environmental impact statement, and occurring at the same time and place as that action, while indirect impacts are caused by the action

at a later time or more distant place, yet are still reasonably foreseeable; LBP-11-26, 74 NRC 499 (2011)
large environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource; LBP-11-26, 74 NRC 499 (2011)
"material issue" is one where resolution of the dispute would make a difference in the outcome of the licensing proceeding; LBP-11-23, 74 NRC 287 (2011)
moderate environmental effects are sufficient to noticeably alter but not to destabilize important attributes of the resource; LBP-11-26, 74 NRC 499 (2011)
"partial initial decision" is one rendered following an evidentiary hearing on one or more contentions, but that does not dispose of the entire matter; CLI-11-6, 74 NRC 203 (2011); CLI-11-10, 74 NRC 251 (2011)
"presiding officer" in NRC adjudicatory proceedings is defined in 10 C.F.R. 2.4; LBP-11-22, 74 NRC 259 (2011)
production and utilization facilities include nuclear power reactors; LBP-11-25, 74 NRC 380 (2011)
safety-related systems, structures, and components are those relied upon to remain functional during and following design-basis events to ensure specific functions; LBP-11-20, 74 NRC 65 (2011)
severe accident mitigation alternatives are safety enhancements such as a new hardware item or procedure intended to reduce the risk of severe accidents; LBP-11-33, 74 NRC 675 (2011)
severe accident mitigation alternatives are somewhat broader than severe accident mitigation design alternatives, which focus on design changes and do not consider procedural modifications; LBP-11-38, 74 NRC 817 (2011)
severe accident mitigation design alternatives analyses examine whether implementing a SAMDA would decrease the probability-weighted consequences of severe accidents; LBP-11-38, 74 NRC 817 (2011)
severe accidents are reactor accidents more severe than design basis accidents and involve substantial damage to the reactor core; LBP-11-38, 74 NRC 817 (2011)
small environmental effects are not detectable or are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource; LBP-11-26, 74 NRC 499 (2011)
the "rule of reason" is a judicial device to ensure that common sense and reason are not lost in the rubric of regulation; LBP-11-26, 74 NRC 499 (2011)

DELAY OF PROCEEDING
Congress assumed that individuals establishing a right to be heard in opposition to a license application would be heard with reasonable expedition; LBP-11-30, 74 NRC 627 (2011)
extreme delay in the completion of Staff's environmental review, and thus the equal delay in hearing intervenors' claim of injury, raises issues of compliance with section 189a of the Atomic Energy Act; LBP-11-30, 74 NRC 627 (2011)
potential to broaden or delay a proceeding may not be relied on to exclude a contention because NRC has a duty to consider new and significant information that arises before it makes its licensing decisions; LBP-11-35, 74 NRC 701 (2011)
the Commission, but not a licensing board, has the power to address a protracted delay in the proceeding and to direct appropriate remedial measures; LBP-11-30, 74 NRC 627 (2011)

DEPARTMENT OF ENERGY
DOE has independent records retention obligations regarding creation, management, and disposal of records; CLI-11-13, 74 NRC 635 (2011)

DEPLETED URANIUM
possession of depleted uranium at multiple installations without an NRC license and performance of decommissioning at a military installation without proper NRC authorization is a violation of 10 C.F.R. 40.3; DD-11-5, 74 NRC 399 (2011)
request for enforcement action against U.S. Army for post-license-expiration possession and release into the environment of depleted uranium from spent spotting rounds is granted in part and denied in part; DD-11-5, 74 NRC 399 (2011)

DESIGN
challenges to the design of the nuclear power plant are outside the scope of the license renewal proceeding; LBP-11-23, 74 NRC 287 (2011)
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the current licensing basis includes plant-specific design-basis information as documented in the most recent final safety analysis report; LBP-11-21, 74 NRC 115 (2011)
DESIGN BASIS ACCIDENT
although the likelihood of severe accidents occurring is lower than that for design basis accidents, consequences of severe accidents are generally greater; LBP-11-38, 74 NRC 817 (2011)
severe accidents are reactor accidents more severe than design basis accidents and involve substantial damage to the reactor core; LBP-11-38, 74 NRC 817 (2011)
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applications for certified reactor designs include a probabilistic risk assessment for severe accidents; LBP-11-38, 74 NRC 817 (2011)
challenging features of the standard reactor design is a matter for a design certification rulemaking, not a combined license proceeding; CLI-11-8, 74 NRC 214 (2011); LBP-11-38, 74 NRC 817 (2011)
in making its combined license findings, the Commission will treat as resolved those matters resolved in the issuance of a design certification rule; LBP-11-38, 74 NRC 817 (2011)
NRC has authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation; CLI-11-8, 74 NRC 214 (2011); CLI-11-10, 74 NRC 251 (2011)
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if the parties settle their dispute after a hearing, the board should dismiss the adjudication; LBP-11-22, 74 NRC 259 (2011)
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the Commission exercises its inherent supervisory authority to direct the board to complete all necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding; CLI-11-7, 74 NRC 212 (2011)
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the licensing board directed parties defending depositions to make efforts to identify and obtain Licensing Support Network documents that must be indexed for the benefit of other parties and to circulate those indexes as soon as practicable; CLI-11-13, 74 NRC 635 (2011)
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ALARA is defined as every reasonable effort to maintain exposures to radiation as far below the dose limits in Part 20 as is practical consistent with the purpose for which the licensed activity is undertaken; CLI-11-12, 74 NRC 460 (2011)
if institutional controls fail and engineered barriers have degraded over a period of time, the dose to a member of the public will not exceed 100 mrem per year, or 500 mrem per year under certain circumstances, and is as low as reasonably achievable; CLI-11-12, 74 NRC 460 (2011)
limit for individual members of the public from a licensed activity is a total effective dose equivalent of 100 millirem per year; CLI-11-12, 74 NRC 460 (2011)
limit for license termination is a constraint within the public dose limit of 25 mrem per year to members of the public; CLI-11-12, 74 NRC 460 (2011)
NRC regulations neither explicitly nor implicitly require a comparison of the levels of protection afforded by the unrestricted and restricted decommissioning options; CLI-11-12, 74 NRC 460 (2011)
public doses for all Part 20 radiation protection programs must be as low as reasonably achievable and a basic radiation protection public dose standard of 100 mrem per year is required; CLI-11-12, 74 NRC 460 (2011)
small doses of radiation below dose limits, while safe and acceptable, may have some associated risk and should be reduced below limits when reasonable; CLI-11-12, 74 NRC 460 (2011)
the ALARA principle as used in NRC regulations does not mean as low as achievable as a comparison between achievable doses, but rather as low as reasonably achievable below the dose limits; CLI-11-12, 74 NRC 460 (2011)

the ALARA principle has been incorporated into the restricted-use portion of the license termination rule to screen out sites that should be removing contamination to achieve unrestricted use; CLI-11-12, 74 NRC 460 (2011)
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absent voluntary action by applicant to amend its environmental report, intervenor wishing to raise new or revised post-ER environmental concerns must await issuance of Staff's DEIS; LBP-11-37, 74 NRC 774 (2011)
any new and significant information that arises in the interval after the applicant files its originally compliant environmental report must be captured and addressed; LBP-11-32, 74 NRC 654 (2011)
if recommendations of the NRC's Near-Term Task Force review of the Fukushima Dai-ichi accident constitute relevant new and significant information, then the DEIS must address them; LBP-11-28, 74 NRC 604 (2011)
NRC Staff must supplement the DEIS if there are substantial changes in the proposed action that are relevant to environmental concerns or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; LBP-11-33, 74 NRC 675 (2011); LBP-11-34, 74 NRC 685 (2011)
petitioners may amend their contentions or file new contentions if the supplemental DEIS differs significantly from the data or conclusions in applicant's documents; LBP-11-34, 74 NRC 685 (2011)
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until NRC Staff issues its DEIS or FEIS, it cannot plausibly be argued that the document is inadequate or otherwise fails to satisfy NEPA; LBP-11-33, 74 NRC 675 (2011)
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consistent with license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent; DD-11-6, 74 NRC 420 (2011)
EMERGENCY PLANNING
contention is neither germane to age-related degradation nor unique to the period covered by a license renewal application; LBP-11-35, 74 NRC 701 (2011)
this issue is beyond the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
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a license amendment request does not require an updated or separate emergency plan unless such a plan would be germane to the type of license amendment request under review or is part of a licensee's periodic update of emergency plans; LBP-11-29, 74 NRC 612 (2011)
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the costs and benefits of the energy-efficient building code are essential to determine whether the adoption of an energy-efficient building code should be included as an alternative; LBP-11-21, 74 NRC 115 (2011)
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request for cold shutdown because of inoperability of main steam safety relief valves is denied but petitioner's concern about the SRVs have been resolved; DD-11-6, 74 NRC 420 (2011)
request for enforcement action against U.S. Army for post-license-expiration possession and release into the environment of depleted uranium from spent spotting rounds is granted in part and denied in part; DD-11-5, 74 NRC 399 (2011)
the current licensing basis includes licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports; LBP-11-21, 74 NRC 115 (2011)
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for operating license renewal, if NRC Staff has not previously considered severe accident mitigation alternatives for applicant's plant in an environmental impact statement or related supplement or in an EA, applicant's environmental report must contain a consideration of alternatives to mitigate severe accidents; LBP-11-18, 74 NRC 29 (2011); LBP-11-21, 74 NRC 115 (2011)
ENVIRONMENTAL EFFECTS
as an alternative ground for excluding a NEPA terrorism contention, NRC Staff's determination in the generic environmental impact statement that the environmental impacts of a terrorist attack were bounded by those resulting from internally initiated events is sufficient to address the environmental impacts of terrorism; CLI-11-11, 74 NRC 427 (2011)
cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time; LBP-11-26, 74 NRC 499 (2011)
direct impacts are those caused by the action that is the subject of the environmental impact statement, and occurring at the same time and place as that action, while indirect impacts are caused by the action at a later time or more distant place, yet are still reasonably foreseeable; LBP-11-26, 74 NRC 499 (2011)
irrespective of the cause of the impact or the appropriate level of administrative scrutiny, for the purpose of NEPA evaluation, NRC regulations categorize impacts into direct, indirect, and cumulative; LBP-11-26, 74 NRC 499 (2011)
large effects are clearly noticeable and are sufficient to destabilize important attributes of the resource; LBP-11-26, 74 NRC 499 (2011)
moderate effects are sufficient to noticeably alter but not to destabilize important attributes of the resource; LBP-11-26, 74 NRC 499 (2011)
NEPA does not require NRC to consider the environmental consequences of hypothetical terrorist attacks on NRC-licensed facilities; CLI-11-11, 74 NRC 427 (2011)

small effects are not detectable or are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource; LBP-11-26, 74 NRC 499 (2011)
the Fukushima accident does not provide a seriously different picture of the environmental impact of a proposed uranium enrichment facility from what was previously envisioned; LBP-11-26, 74 NRC 499 (2011)
to waive the generic assessment in NRC regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in this license renewal proceeding, the Commission must conclude that the rule's strict application would not serve the purpose for which it was adopted; CLI-11-11, 74 NRC 427 (2011)
within the geographic boundary of the Ninth Circuit, NRC may not exclude NEPA terrorism contentions categorically; CLI-11-11, 74 NRC 427 (2011)
ENVIRONMENTAL IMPACT STATEMENT
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agencies need only address reasonably foreseeable impacts, not those that are remote and speculative or inconsequentially small; LBP-11-38, 74 NRC 817 (2011)
agencies should consider both the context and intensity of environmental impacts; LBP-11-26, 74 NRC 499 (2011)
all adverse effects to any NRHP-eligible historic or cultural resource must be considered during any federal undertaking; LBP-11-26, 74 NRC 499 (2011)
alleged defects in applicant's environmental report may be mooted by the content of NRC's EIS or supplemental EIS; LBP-11-28, 74 NRC 604 (2011)
allowing an environmental challenge to continue after the EIS has issued does not constitute a merits ruling that the Staff's review document is inadequate; CLI-11-6, 74 NRC 203 (2011)
an EIS that contains an incomplete or misleading comparison of alternatives is deficient; LBP-11-21, 74 NRC 115 (2011)
applicant and Staff treatment of need for the construction and operation of uranium enrichment facilities should explain why the proposed action is needed, describe the underlying need for the proposed action, but should not be written merely as a justification of the proposed action or to alter the choice of alternatives; LBP-11-26, 74 NRC 499 (2011)
applicant's environmental report must provide sufficient information about alternatives to enable NRC Staff to prepare an EIS in compliance with NEPA; LBP-11-21, 74 NRC 115 (2011)
as a practical matter, Staff relies heavily upon applicant's environmental report in preparing its EIS; LBP-11-38, 74 NRC 817 (2011)
as a tool for assessing the significance of potential impacts, NRC regulations establish a standard scheme; LBP-11-26, 74 NRC 499 (2011)
as part of its NEPA analysis, NRC must provide information that addresses the purpose and need for the proposed action; LBP-11-26, 74 NRC 499 (2011)
because federal agencies typically describe their consideration of the energy requirements of a proposed action, in the context of that analysis agencies should evaluate greenhouse gas emissions; LBP-11-26, 74 NRC 499 (2011)
consideration of alternatives is the heart of the EIS; LBP-11-35, 74 NRC 701 (2011)
contentions may challenge the adequacy of the review contained in the Staff's NEPA documents; LBP-11-22, 74 NRC 259 (2011)
direct impacts are those caused by the action that is the subject of the EIS, and occurring at the same time and place as that action, while indirect impacts are caused by the action at a later time or more distant place, yet are still reasonably foreseeable; LBP-11-26, 74 NRC 499 (2011)
EISs are not intended to be research documents, reflecting the frontiers of scientific methodology, studies, and data; LBP-11-38, 74 NRC 817 (2011)
EISs are subject to a rule of reason that grants the agency a degree of deference exempting it from examining impacts that it in good faith deems to be remote and speculative or inconsequentially small; LBP-11-39, 74 NRC 862 (2011)
examples of need for the proposed facility include a benefit provided if the proposed action is granted or descriptions of the detriment that will be experienced without approval of the proposed action; LBP-11-26, 74 NRC 499 (2011)

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NEPA imposes a procedural requirement on an agency's decisionmaking process by mandating that an agency consider the environmental impacts of a proposed action and inform the public that it has taken those impacts into account in making its decision; LBP-11-17, 74 NRC 11 (2011)
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NRC must rigorously explore and objectively analyze environmental impacts, so that merely offering general statements about possible effects and some risk does not constitute a hard look absent a justification regarding why more definitive information could not be provided; LBP-11-26, 74 NRC 499 (2011)
NRC Staff assesses air quality impacts as a matter of course, categorizing them as small, medium, or large; LBP-11-26, 74 NRC 499 (2011)
NRC Staff must consult with and obtain the comments of any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved; LBP-11-26, 74 NRC 499 (2011)
NRC Staff, pursuant to its obligation to prepare an adequate EIS, is empowered to issue requests for additional information relevant to an applicant's environmental report; LBP-11-33, 74 NRC 675 (2011)
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severe accident mitigation alternatives review identifies and assesses possible plant changes such as improvements in hardware, training, or procedures that could cost-effectively mitigate the environmental impacts that would otherwise flow from a potential severe accident; LBP-11-17, 74 NRC 11 (2011)
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taking a hard look at environmental impacts fosters informed decisionmaking and public participation and thus ensures that the agency does not act upon incomplete information, only to regret its decision after it is too late to correct it; LBP-11-38, 74 NRC 817 (2011)
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Staff guidance documents set forth information that should be provided in the ER and the environmental impact statement regarding a radiological monitoring program and monitoring program acceptance criteria; LBP-11-26, 74 NRC 499 (2011)

Staff's ability to satisfy its NEPA obligations will be undermined if applicant either fails to include seismic information in its SAMA analysis, or, in omitting the information, fails to explain its absence and justify that the overall costs of obtaining it are exorbitant; CLI-11-11, 74 NRC 427 (2011)
the current licensing basis of an operating license shall continue during the license renewal period, but these conditions may be supplemented or amended as necessary to protect the environment during the term of the renewed license and will be derived from information contained in the supplement to the environmental report, as analyzed and evaluated in the NRC record of decision; LBP-11-17, 74 NRC 11 (2011)
the phrase "new" in 10 C.F.R. 51.53(c)(3)(iv) requires that the ER include environmental information that is new as compared to the original ER for the same facility and new as of the time of submission of the required ER, but does not impose a continuing duty to supplement an ER which was compliant when submitted; LBP-11-32, 74 NRC 654 (2011)
the purpose of applicant's ER is to assist NRC in preparing the agency's own environmental analysis; LBP-11-28, 74 NRC 604 (2011)
ENVIRONMENTAL REVIEW
although sufficiency of the application and NRC Staff's environmental review of that application are proper targets of contentions, sufficiency of NRC Staff's safety review of the application is not a proper target of contentions; LBP-11-29, 74 NRC 612 (2011)
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 499 (2011)
completion of NRC Staff's final environmental review document always must precede the conduct of hearings on environmental issues; LBP-11-30, 74 NRC 627 (2011)
ensuring continued availability of diverse, reliable sources of domestic enrichment services to provide low-enriched uranium for domestic power reactors supports a finding of need for the facility; LBP-11-26, 74 NRC 499 (2011)
environmental impacts of license renewal are classified as either Category 1, which are generically addressed by the NRC's generic environmental impact statement for license renewal, or Category 2, which are analyzed on a site-specific basis; LBP-11-17, 74 NRC 11 (2011)
evidence of significant actual utility commitments provides a compelling showing in support of the need for uranium enrichment facility; LBP-11-26, 74 NRC 499 (2011)
extreme delay in the completion of Staff's environmental review, and thus the equal delay in hearing intervenors' claim of injury, raises issues of compliance with section 189a of the Atomic Energy Act; LBP-11-30, 74 NRC 627 (2011)
for the mandatory uncontested proceeding on a uranium enrichment facility license, a licensing board is to conduct a simple sufficiency review rather than a de novo review on both safety and environmental issues; LBP-11-26, 74 NRC 499 (2011)
once NRC completes its environmental review, its record of decision must state whether NRC has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted, and summarize any license conditions and monitoring programs adopted in connection with mitigation measures; LBP-11-17, 74 NRC 11 (2011)
the aging-based safety review set out in Part 54 is analytically separate from Part 51's environmental inquiry and does not in any sense restrict NEPA; LBP-11-17, 74 NRC 11 (2011)
the NEPA review in license renewal proceedings is not limited to aging management-related issues; LBP-11-17, 74 NRC 11 (2011)
to evaluate an operating license renewal application, NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54 and the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 11 (2011)
ERROR
a board erred in admitting a contention pertaining to a plant's safety culture; CLI-11-11, 74 NRC 427 (2011)

EVACUATION PLANS
if petitioner is concerned about the sufficiency of the ongoing oversight of a nuclear power plant and its current evacuation plan, it has the option of requesting a modification, suspension, or revocation of its operating license; LBP-11-29, 74 NRC 612 (2011)
EVIDENCE
support for a motion to reopen must be relevant, material, and reliable; LBP-11-23, 74 NRC 287 (2011)
EXEMPTIONS
in denying an exemption request, Staff is required to inform applicant of the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
request for an exemption that would enable licensee to provide decommissioning funding on a forward-looking, incremental basis, at a rate proportional to the then-current decontamination and decommissioning liability is granted; CLI-11-4, 74 NRC 1 (2011)
EXHIBITS
boards accord each exhibit weight to the extent it is relevant, material, and reliable; LBP-11-18, 74 NRC 29 (2011)
FAIRNESS
a state's regulations are not inherently unfair because they may be designed to effectuate a state-desired regulatory outcome; CLI-11-12, 74 NRC 460 (2011)
filings not otherwise authorized by NRC rules are allowed only where necessity or fairness dictates; CLI-11-14, 74 NRC 801 (2011)
when establishing a schedule, boards are to consider NRC's interest in providing a fair and expeditious resolution of the issues sought to be admitted for adjudication in the proceeding, along with other factors; LBP-11-22, 74 NRC 259 (2011)
FAULTS
to evaluate the impact of a fault on current operations, a probabilistic risk assessment rather than a deterministic analysis is the accepted and standard practice in SAMA analyses; CLI-11-11, 74 NRC 427 (2011)
FILINGS
parties are expected to adhere to page-limit requirements, or timely seek leave for an enlargement of the page limitation; CLI-11-14, 74 NRC 801 (2011)
FINAL ENVIRONMENTAL IMPACT STATEMENT
NRC Staff must supplement the FEIS if there are substantial changes in the proposed action that are relevant to environmental concerns or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; LBP-11-32, 74 NRC 654 (2011); LBP-11-33, 74 NRC 675 (2011)
petitioner may amend its contentions or file new contentions if there are data or conclusions in the NRC DEIS or FEIS or any supplements thereto, that differ significantly from the data or conclusions in applicant's documents; LBP-11-33, 74 NRC 675 (2011)
the adjudicatory record, board decision, and any Commission appellate decisions become, in effect, part of the FEIS; CLI-11-6, 74 NRC 203 (2011)
the Council on Environmental Quality has recognized that information may be unavoidably incomplete or unavailable, and that under those circumstances, an FEIS can overcome this deficiency if it states that fact, explains how the missing information is relevant, sets forth the existing information, and evaluates the environmental impacts to the best of the agency's ability; CLI-11-11, 74 NRC 427 (2011)
until NRC Staff issues its draft or final EIS, it cannot plausibly be argued that the document is inadequate or otherwise fails to satisfy NEPA; LBP-11-33, 74 NRC 675 (2011)
FINAL SAFETY ANALYSIS REPORT
intervenors' speculation that further review of certain issues might change some conclusions in the FSAR does not justify restarting the hearing process; LBP-11-20, 74 NRC 65 (2011)
it is permissible for the FSAR to give applicant several options for controlling and limiting radioactive effluents and radiation exposures, provided that each option is described with a level of information sufficient to enable the Commission to reach a final conclusion; LBP-11-31, 74 NRC 643 (2011)
the current licensing basis includes plant-specific design-basis information as documented in the most recent FSAR; LBP-11-21, 74 NRC 115 (2011)

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FINAL SAFETY EVALUATION REPORT
speculation that further review of certain issues might change some conclusions in the FSER does not justify restarting the hearing process; LBP-11-23, 74 NRC 287 (2011); LBP-11-35, 74 NRC 701 (2011)
FINALITY
rationale for NRC's policy of generally disfavoring the filing of new contentions at the eleventh hour of an adjudication is based on the doctrine of finality, which states that at some point, an adjudicatory proceeding must come to an end; LBP-11-20, 74 NRC 65 (2011)
there simply would be no end to NRC licensing proceedings if petitioners could ignore timeliness requirements and add new contentions at their convenience based on information that could have formed the basis for a timely contention at the outset of the proceeding; LBP-11-20, 74 NRC 65 (2011)
FINANCIAL ASSURANCE
an acceptable trustee includes an appropriate state or federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency; CLI-11-4, 74 NRC 1 (2011)
applicant's commitment to provide a letter of credit issued by a financial institution whose operations are regulated and examined by a federal or state agency is sufficient to satisfy decommissioning funding assurance requirements; CLI-11-4, 74 NRC 1 (2011); LBP-11-26, 74 NRC 499 (2011)
because it has chosen a surety method, licensee must ensure that the letter of credit is payable to a trust established for decommissioning costs; CLI-11-4, 74 NRC 1 (2011)
certification of financial assurance may state that the appropriate assurance will be obtained after the application has been approved and the license issued but before the receipt of licensed material; CLI-11-4, 74 NRC 1 (2011)
certifications, which are used by applicants seeking to possess smaller quantities of material, are governed by 10 C.F.R. 70.25(b)(2); CLI-11-4, 74 NRC 1 (2011)
deferral of execution of the financial instruments until after the license has issued is not allowed for a uranium enrichment facility; CLI-11-4, 74 NRC 1 (2011)
depending on the quantity of material, Part 70 license applicants must submit either a decommissioning funding plan or a certification of financial assurance; CLI-11-4, 74 NRC 1 (2011)
each decommissioning funding plan must include a signed original of the instrument obtained to provide financial assurance for decommissioning at the time the plan is submitted; CLI-11-4, 74 NRC 1 (2011)
federal financial regulatory agencies regularly examine banks within their jurisdiction, generally at 12- or 18-month intervals; CLI-11-4, 74 NRC 1 (2011)
financial tests for parent company guarantees and self-guarantees require that an independent certified public accountant review the data used in the financial test and require that the licensee inform NRC within 90 days of any matters coming to the auditor's attention which cause the auditor to believe that the data specified in the financial test should be adjusted and that the company no longer passes the test; CLI-11-4, 74 NRC 1 (2011)
licensees may use a site-specific methodology to determine the decommissioning funding needed as long as the amount is greater than the decommissioning cost estimate derived from formulas in 10 C.F.R. 50.75(c); DD-11-7, 74 NRC 787 (2011)
NRC Staff authorization permitting applicant to defer execution of any final letters of credit for decommissioning financial assurance until after a license is issued but before receipt of licensed material might be problematic; LBP-11-26, 74 NRC 499 (2011)
possession limits associated with a certification of financial assurance are set forth in 10 C.F.R. 70.25(d); CLI-11-4, 74 NRC 1 (2011)
power reactor licensees must report decommissioning funding assurance information to NRC at least once every 2 years; DD-11-7, 74 NRC 787 (2011)
request for hearing on Staff denial of permission to use an alternative method for demonstrating decommissioning funding assurance is granted; LBP-11-19, 74 NRC 61 (2011)
requirements for decommissioning are structured according to the quantity of material that will be authorized for possession and use; CLI-11-4, 74 NRC 1 (2011)
Staff's deference to the expertise of other federal and state agencies to set and monitor the financial soundness of institutions issuing letters of credit is reasonable; CLI-11-4, 74 NRC 1 (2011)
the source of funds for operating and maintenance expenses would be unaffected by a transaction for decommissioning funding; CLI-11-4, 74 NRC 1 (2011)

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FINDINGS OF FACT
in making its combined license findings, the Commission will treat as resolved those matters resolved in the issuance of a design certification rule; LBP-11-38, 74 NRC 817 (2011)
FIRES
applying principles of statutory interpretation, the board declined to insert addition requirements into the regulations to specify damage states or the number and magnitude of fires and explosions with Commission intent to the contrary and without a showing that such a requirement is unavoidable or imperatively required; CLI-11-9, 74 NRC 233 (2011)
COL applications must include a description and plans for implementation of the guidance and strategies required by section 50.54(hh)(2) for severe accident mitigation; CLI-11-9, 74 NRC 233 (2011)
licensees must develop and implement guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in case of loss of large areas of the plant due to explosions or fire; CLI-11-5, 74 NRC 141 (2011)
FOREIGN OWNERSHIP
all prospective co-licensees are subject to the limitations on foreign ownership, control, or domination; LBP-11-25, 74 NRC 380 (2011)
an entity is under foreign ownership, control, or domination whenever a foreign interest has the power, direct or indirect, whether or not exercised, to direct or decide matters affecting the management or operations of the applicant; LBP-11-25, 74 NRC 380 (2011)
even substantial foreign funding or involvement where a foreign entity contributes 50% or more of the costs of constructing a reactor or participates in the project review and is consulted on policy and cost issues does not require a finding of foreign control, where safeguards ensure U.S. national defense and security; LBP-11-25, 74 NRC 380 (2011)
foreign control must be interpreted in light of all the information that bears on who in the corporate structure exercises control over what issues and what rights may be associated with certain types of shares; LBP-11-25, 74 NRC 380 (2011)
no license may be issued to an alien or any corporation or other entity if the Commission knows or has reason to believe it is owned, controlled, or dominated by an alien, a foreign corporation, or a foreign government; LBP-11-25, 74 NRC 380 (2011)
there is no specific ownership percentage above which it would conclusively find that an applicant is per se controlled by foreign interests; LBP-11-25, 74 NRC 380 (2011)
to issue a combined license or entertain an application for a COL, the Commission cannot know or have reason to believe applicant is controlled by an alien, a foreign corporation, or a foreign government; LBP-11-25, 74 NRC 380 (2011)
FUKUSHIMA ACCIDENT
although the Task Force Report on the Fukushima accident did not justify initiating a generic NEPA review, the Commission acknowledged that new and significant information may come to light that must be considered in individual reactor licensing proceedings; LBP-11-32, 74 NRC 654 (2011)
any changes adopted as a result of the Fukushima accident or the Task Force Report can and will be implemented through the normal regulatory process; LBP-11-28, 74 NRC 604 (2011); LBP-11-32, 74 NRC 654 (2011)
because the full implications of the Fukushima events for U.S. facilities are unknown, any generic NEPA duty does not accrue; LBP-11-27, 74 NRC 591 (2011)
boards are encouraged to seek guidance from the Commission with regard to new contentions based on the accident; LBP-11-32, 74 NRC 654 (2011)
claims for relief from Fukushima-related events are premature; LBP-11-27, 74 NRC 591 (2011); LBP-11-28, 74 NRC 604 (2011); LBP-11-33, 74 NRC 675 (2011); LBP-11-34, 74 NRC 685 (2011); LBP-11-36, 74 NRC 768 (2011); LBP-11-37, 74 NRC 774 (2011); LBP-11-39, 74 NRC 862 (2011)
Commission responses to requests for suspension of reactor licensing reviews and associated adjudications in the wake of the Three Mile Island accident and 9/11 terrorist attacks are discussed; LBP-11-37, 74 NRC 774 (2011)
contention is denied for failure of its proponent to contact the other parties to resolve the issue presented by the contention prior to its submission; LBP-11-37, 74 NRC 774 (2011)
contention is denied for failure to reference any specific portion of the application at issue; LBP-11-37, 74 NRC 774 (2011)

contention is denied for failure to show the contention is within the scope of the proceeding or is material to the findings NRC must make to support the requested licensing action; LBP-11-37, 74 NRC 774 (2011)
for pending license renewal applications, where the period of extended operation will not begin for at least a year, there is no imminent threat to public health and safety that requires suspension of licensing proceedings or decisions; LBP-11-35, 74 NRC 701 (2011)
for suspension of licensing proceedings, petitioners must show that continuation of proceedings, pending consideration of a rulemaking petition, would jeopardize the public health and safety, prove an obstacle to fair and efficient decisionmaking, or prevent appropriate implementation of any pertinent rule or policy changes that might emerge from NRC's continued evaluation of the impacts of the Fukushima accident; LBP-11-33, 74 NRC 675 (2011)
Fukushima-related contention based on a Staff Requirements Memorandum are inadmissible because the SRM does not define or impose any new requirements arising from the Fukushima accident and thus fails to establish a genuine dispute on a material issue of law or fact; LBP-11-37, 74 NRC 774 (2011)
however "significance" is defined, the accident and its aftermath have (as any such severe accident would do) clearly painted a seriously different picture of the environmental landscape; LBP-11-23, 74 NRC 287 (2011)
if recommendations of the NRC's Near-Term Task Force review of the accident constitute relevant new and significant information, then the draft supplemental environmental impact statement must address them; LBP-11-28, 74 NRC 604 (2011)
in the future the Commission might provide relevant guidance regarding the proper time frame for adjudicating Fukushima-related contentions; LBP-11-39, 74 NRC 862 (2011)
intervenor may propose new contentions based on the Fukushima accident, the SER, the new SEIS, or other sources of new and materially different information, provided that it does so promptly after the new information becomes available and that it successfully fulfills the general contention admissibility requirements; LBP-11-22, 74 NRC 259 (2011)
issuance of a Staff Requirements Memorandum directing Staff to implement "without delay" the recommendations of the Fukushima Task Force does not render contentions admissible; LBP-11-36, 74 NRC 768 (2011)
motion to admit a new contention arguing that applicant's environmental report fails to satisfy NEPA because it does not address findings and recommendations raised by Task Force Report on the Fukushima Dai-ichi accident is denied as premature and insufficiently focused on the license renewal application; LBP-11-28, 74 NRC 604 (2011)
moving forward with decisions and proceedings will have no effect on NRC's ability to implement necessary rule or policy changes that might come out of its review of the accident; LBP-11-32, 74 NRC 654 (2011); LBP-11-35, 74 NRC 701 (2011)
new information from studies of the Fukushima event as to potential consequences of a severe accident at a U.S. nuclear power plant is irrelevant to any uncertainty that might exist regarding which agency has authority over cleanup after a severe accident; LBP-11-20, 74 NRC 65 (2011)
new information requiring NRC Staff to prepare supplemental environmental review documents must present a seriously different picture of the environmental impact of the proposed project from what was previously envisioned; LBP-11-27, 74 NRC 591 (2011)
NRC continues to consider the nuclear events in Japan, and the agency is in the process of implementing and prioritizing actions to be taken in response to the accident; CLI-11-14, 74 NRC 801 (2011)
NRC need not conduct a separate generic NEPA analysis regarding whether the Fukushima events constitute new and significant information under NEPA that must be analyzed as a part of the environmental review for new reactor and license renewal decisions; LBP-11-32, 74 NRC 654 (2011)
NRC regulations and case law already provide clear and uniform standards to determine the timeliness of motions to add new contentions on the Fukushima accident; LBP-11-32, 74 NRC 654 (2011)
NRC understanding of the details of the failure modes at the Fukushima Dai-ichi site continues to evolve and NRC continues to learn more about the extent of the damage at the site; LBP-11-28, 74 NRC 604 (2011)
NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its current licensing basis, which can be adjusted by future Commission order or by

modification to the facility's operating license outside the renewal proceeding; CLI-11-5, 74 NRC 141 (2011); LBP-11-35, 74 NRC 701 (2011)
petitioner fails to specifically explain why a materially different result would have been likely had information currently available from the Fukushima accident been considered ab initio in the severe accident mitigation alternatives analysis or why that information presents a significant safety or environmental issue; LBP-11-35, 74 NRC 701 (2011)
petitioner's attempt to tie NEPA environmental justice claim to Fukushima Task Force report is an improper effort to interpose concerns that could have been raised at the outset of the proceeding; LBP-11-37, 74 NRC 774 (2011)
petitioner's request to hold the license renewal proceeding in abeyance until the Commission resolves petitioner's request to suspend the proceeding pending evaluation of the Fukushima accident is denied because the Commission has denied the suspension request; LBP-11-35, 74 NRC 701 (2011)
petitions for suspension of proceeding and rescission of regulations that make generic conclusions about environmental impacts of severe reactor and spent fuel pool accidents and that preclude consideration of those issues in individual licensing proceedings are denied; LBP-11-39, 74 NRC 862 (2011)
requests to suspend ongoing adjudicatory and licensing activities pending full consideration of the safety and environmental implications of the Fukushima accident are denied; LBP-11-34, 74 NRC 685 (2011)
spent fuel storage pool matters will be addressed, if studies of implications from Fukushima warrant, through more generic regulatory reform; LBP-11-35, 74 NRC 701 (2011)
suspension of reactor licensing proceedings in light of the events at Fukushima is denied; LBP-11-33, 74 NRC 675 (2011)
the accident does not provide a seriously different picture of the environmental impact of a proposed uranium enrichment facility from what was previously envisioned; LBP-11-26, 74 NRC 499 (2011)
the board does not consider intervenor's petition, which requests rulemaking and suspension of the proceeding, because the discussion in the petition's body specifically directs those requests to the Commission, which has already responded to these requests; LBP-11-34, 74 NRC 685 (2011)
the Commission declined to suspend adjudications or any final licensing decisions because of the accident, finding no imminent risk to public health and safety or to common defense and security; CLI-11-8, 74 NRC 214 (2011); CLI-11-10, 74 NRC 251 (2011)
the full implications of the Fukushima accident for U.S. facilities are unknown, and thus any generic NEPA duty, if one is appropriate at all, does not accrue now; LBP-11-33, 74 NRC 675 (2011)
the proper mechanism for raising Fukushima-related, application-specific concerns in ongoing combined license cases is to file a new contention, consistent with the applicable procedural rules; CLI-11-5, 74 NRC 141 (2011)
to the extent NRC's review of the Fukushima accident leads to new rules applicable to any pending application, the Commission has sufficient authority and time to apply them to any new license that may be issued; CLI-11-5, 74 NRC 141 (2011)
unsupported speculation that fresh analysis might lead NRC to require additional mitigation measures simply does not raise a significant safety issue or an exceptionally grave issue; LBP-11-23, 74 NRC 287 (2011)
until NRC defines and imposes on licensees new requirements arising from the Fukushima events, such requirements are highly speculative; LBP-11-33, 74 NRC 675 (2011)
GENERIC ENVIRONMENTAL IMPACT STATEMENT
applicants should rely on the GEIS for terrorism-related issues in a license renewal application; CLI-11-11, 74 NRC 427 (2011)
as an alternative ground for excluding a NEPA terrorism contention, NRC Staff's determination in the GEIS that the environmental impacts of a terrorist attack were bounded by those resulting from internally initiated events is sufficient to address the environmental impacts of terrorism; CLI-11-11, 74 NRC 427 (2011)
environmental impacts of license renewal are classified as either Category 1, which are generically addressed by the NRC's GEIS for license renewal, or Category 2, which are analyzed on a site-specific basis; LBP-11-17, 74 NRC 11 (2011)
NRC need not conduct a separate generic NEPA analysis regarding whether the Fukushima events constitute new and significant information under NEPA that must be analyzed as a part of the environmental review for new reactor and license renewal decisions; LBP-11-32, 74 NRC 654 (2011)

to the extent that petitioner challenges the GEIS, its remedy is a petition for rulemaking or a petition for a waiver of the rules based on circumstances; CLI-11-11, 74 NRC 427 (2011)
GENERIC ISSUES
a severe accident mitigation alternative need not be implemented during a particular plant's license renewal review if the Commission is concurrently resolving the safety improvement achieved by that SAMA through a generic process attached to the agency's review of all plants' current licensing bases; LBP-11-17, 74 NRC 11 (2011)
admission of contentions that NRC may ultimately deal with generically through notice-and-comment rulemaking is precluded; LBP-11-32, 74 NRC 654 (2011)
because Category 1 issues already have been reviewed on a generic basis, applicant's environmental report need not provide a site-specific analysis of these issues; CLI-11-11, 74 NRC 427 (2011)
because the full implications of the Fukushima events for U.S. facilities are unknown, any generic NEPA duty does not accrue; LBP-11-27, 74 NRC 591 (2011)
generic analysis remains appropriate for spent fuel pool accidents in license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
NRC has discretion to resolve issues generically by rulemaking; CLI-11-11, 74 NRC 427 (2011)
GREENHOUSE GAS EMISSIONS
because federal agencies typically describe their consideration of the energy requirements of a proposed action, in the context of that analysis agencies should evaluate GHG emissions; LBP-11-26, 74 NRC 499 (2011)
for power reactors, NRC Staff review should encompass emissions from the uranium fuel cycle as well as from construction and operation of the facility to be licensed; LBP-11-26, 74 NRC 499 (2011)
in assessing GHG impacts, NRC must devote its resources to taking a hard look at the issue; LBP-11-26, 74 NRC 499 (2011)
under NEPA, NRC must assess the environmental impacts of a proposed facility, including those impacts associated with GHG emissions by the proposed facility; LBP-11-26, 74 NRC 499 (2011)
HEALTH AND SAFETY
for pending license renewal applications, where the period of extended operation will not begin for at least a year, there is no imminent threat to public health and safety that requires suspension of licensing proceedings or decisions; LBP-11-35, 74 NRC 701 (2011)
HEARING REQUESTS
a hearing request or petition to intervene must set forth with particularity the contentions sought to be raised by satisfying the six criteria; LBP-11-21, 74 NRC 115 (2011)
a notice failing to contain a specific time limit for administrative review, as required by federal regulations, does not trigger a time bar; LBP-11-19, 74 NRC 61 (2011)
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-11-21, 74 NRC 115 (2011)
if the 20-day deadline for requesting a hearing in 10 C.F.R. 2.103(b) applies, NRC Staff's failure to comply with its own responsibilities under that provision bars Staff from invoking it; LBP-11-19, 74 NRC 61 (2011)
regarding amendment of a license, NRC must grant a hearing upon the request of any person whose interest may be affected by the proceeding and admit any such person as a party; LBP-11-29, 74 NRC 612 (2011)
request for hearing on Staff denial of permission to use an alternative method for demonstrating decommissioning funding assurance is granted; LBP-11-19, 74 NRC 61 (2011)
section 2.311(d)(1) provides for appeals as of right on the question of whether a request for hearing should have been wholly denied; CLI-11-11, 74 NRC 427 (2011)
the time for applicant to request a hearing should be tolled until notice is issued if NRC Staff fails to provide the notice and hearing opportunity mandated by 10 C.F.R. 2.103(b); LBP-11-19, 74 NRC 61 (2011)
to show standing, petitioner must state its name, address, and telephone number, nature of its right under the applicable statutes to be made a party, nature and extent of property, financial, or other interest in the proceeding, and possible effect of any decision or order that may be issued on its interest; LBP-11-29, 74 NRC 612 (2011)

where applicant has raised sufficient question as to the appropriate deadline, the board may conclude that it would be unfair to penalize applicant on account of what might be ambiguity in NRC's own regulations; LBP-11-19, 74 NRC 61 (2011)
HEARING RIGHTS
a party that has successfully intervened in a licensing proceeding may propose new contentions for litigation until the license is issued; LBP-11-22, 74 NRC 259 (2011)
although the Commission retains broad authority to define standards and thresholds for determining when new information raises a material issue of a plant's conformity with the Atomic Energy Act, if such information is presented, it must provide a hearing upon request; LBP-11-22, 74 NRC 259 (2011)
Atomic Energy Act § 189a has been interpreted to require that the hearing must encompass all material factors bearing on the licensing decision raised by the requester; LBP-11-22, 74 NRC 259 (2011)
Congress assumed that individuals establishing a right to be heard in opposition to a license application would be heard with reasonable expedition; LBP-11-30, 74 NRC 627 (2011)
extreme delay in the completion of the Staff's environmental review, and thus the equal delay in hearing intervenors' claim of injury, raises issues of compliance with section 189a of the Atomic Energy Act; LBP-11-30, 74 NRC 627 (2011)
if NRC Staff finds that an application does not comply with regulatory requirements, it must inform applicant in writing of the nature of any deficiencies or the reason for the proposed denial and the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
in denying an exemption request, Staff is required to inform applicant of the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
NRC preserves 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-11-22, 74 NRC 259 (2011)
the Commission shall grant a hearing to, and admit as a party to, any licensing proceeding any person whose interest may be affected by the proceeding; LBP-11-22, 74 NRC 259 (2011)
See also Deferral of Hearing
HIGH-LEVEL WASTE REPOSITORY PROCEEDING
given the posture of the case, the Commission declines to decide a petition for review but will allow petitioner to file a motion to reinstate its petition should the proceeding be reactivated at a future time; CLI-11-15, 74 NRC 815 (2011)
in light of current fiscal constraints, the board suspends the proceeding; LBP-11-24, 74 NRC 368 (2011)
the Commission exercises its inherent supervisory authority to direct the board to complete all necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding; CLI-11-7, 74 NRC 212 (2011)
the procedural rule governing appeals in a 10 C.F.R. Part 2, Subpart J proceeding provides for review only in the limited circumstances prescribed in the rule; CLI-11-13, 74 NRC 635 (2011)
HISTORIC SITES
historical/cultural resources are considered eligible for listing on the National Register of Historic Places if they meet one or more of four criteria; LBP-11-26, 74 NRC 499 (2011)
HYDROGEN CONTROL
suppositions/speculation regarding effectiveness of hydrogen control mechanisms are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
IMMEDIATE EFFECTIVENESS
the Commission temporarily suspended the immediate effectiveness rule following the Three Mile Island accident; CLI-11-5, 74 NRC 141 (2011)
INCORPORATION BY REFERENCE
although the entire record is considered on appeal, including pleadings that appellants ask to be adopted by reference, the Commission's decision responds to the arguments made explicitly in the appellate brief; CLI-11-8, 74 NRC 214 (2011)
an issue on appeal is not properly briefed by incorporating by reference papers filed with the licensing board; CLI-11-8, 74 NRC 214 (2011)
requirements of section XI of the ASME Boiler and Pressure Vessel Code on inservice inspections are incorporated by reference in 10 C.F.R. 50.55a(b) and 50.55a(g)(4); CLI-11-8, 74 NRC 214 (2011)

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INDEPENDENT SPENT FUEL STORAGE INSTALLATION PROCEEDINGS
the board applied the late-filing standards to a post-9/11 contention related to the risk of a terrorist attack on the ISFSI and found the contention timely but denied admission of both the safety and environmental aspects of the contention; CLI-11-5, 74 NRC 141 (2011)
INITIAL DECISIONS
denial of summary disposition does not constitute a full or partial initial decision warranting immediate Commission review; CLI-11-10, 74 NRC 251 (2011)
petitions for review are allowed after a full or partial initial decision, both of which are considered final decisions; CLI-11-10, 74 NRC 251 (2011); CLI-11-14, 74 NRC 801 (2011)
See also Partial Initial Decisions
INJURY IN FACT
extreme delay in the completion of Staff's environmental review, and thus the equal delay in hearing intervenors' claim of injury, raises issues of compliance with section 189a of the Atomic Energy Act; LBP-11-30, 74 NRC 627 (2011)
INSPECTION
requirements of section XI of the ASME Boiler and Pressure Vessel Code on inservice inspections are incorporated by reference in 10 C.F.R. 50.55a(b), 50.55a(g)(4); CLI-11-8, 74 NRC 214 (2011)
INSPECTION REPORTS
such reports could be seen as objective evidence that applicant may not adequately manage aging in the future; CLI-11-11, 74 NRC 427 (2011)
INTERVENORS
a party that has successfully intervened in a licensing proceeding may propose new contentions for litigation until the license is issued; LBP-11-22, 74 NRC 259 (2011)
INTERVENTION
a hearing request and party status as an intervenor may only be granted to a petitioner if it demonstrates standing and proffers at least one admissible contention; LBP-11-22, 74 NRC 259 (2011); LBP-11-29, 74 NRC 612 (2011)
INTERVENTION PETITIONS
a hearing request or petition to intervene must set forth with particularity the contentions sought to be raised by satisfying six criteria; LBP-11-21, 74 NRC 115 (2011)
a reply must be filed within 7 days after the filing of answers to an intervention petition; LBP-11-21, 74 NRC 115 (2011)
although a board may view petitioner's supporting information in a light favorable to the petitioner, NRC contention admissibility rules require petitioner (not the board) to supply all elements for a valid intervention petition; LBP-11-29, 74 NRC 612 (2011)
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-11-21, 74 NRC 115 (2011)
intervention petitions must be filed within 60 days based on the documents then in existence, meaning that the petition must be based on the documents submitted with the application; LBP-11-22, 74 NRC 259 (2011)
petition is denied for failure to proffer an admissible contention; LBP-11-21, 74 NRC 115 (2011)
INTERVENTION RULINGS
a board erred in admitting a contention pertaining to a plant's safety culture; CLI-11-11, 74 NRC 427 (2011)
at the contention admissibility stage, it is simply not appropriate for boards to decide what additional information, if any, is necessary to cure a claimed deficiency in a license application; CLI-11-11, 74 NRC 427 (2011)
the Commission will defer to a board's rulings on contention admissibility absent an error of law or abuse of discretion; CLI-11-11, 74 NRC 427 (2011)
INTERVENTION, DISCRETIONARY
if petitioner fails to show standing pursuant to section 2.309(d), a board may grant discretionary standing when at least one requestor/petitioner has established standing and at least one admissible contention has been admitted so that a hearing will be held; LBP-11-29, 74 NRC 612 (2011)

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IRREPARABLE INJURY
denial of summary disposition neither threatens NRC Staff with immediate and serious irreparable impact that could not be alleviated through a petition for review of the presiding officer's final decision nor affects the basic structure of the proceeding in a pervasive or unusual manner; CLI-11-10, 74 NRC 251 (2011)
labor and expense of pursuing litigation that petitioner sought to curtail do not constitute irreparable harm; CLI-11-10, 74 NRC 251 (2011)
LICENSE AMENDMENTS
amendment requests do not require an updated or separate emergency plan unless such a plan would be germane to the type of amendment request under review or is part of a licensee's periodic update of emergency plans; LBP-11-29, 74 NRC 612 (2011)
LICENSE APPLICATIONS
intervention petitions must be filed within 60 days based on the documents then in existence, meaning that the petition must be based on the documents submitted with the application; LBP-11-22, 74 NRC 259 (2011)
NRC preserves 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-11-22, 74 NRC 259 (2011)
See also Contested License Applications; Materials License Amendment Applications; Uncontested License Applications
LICENSE CONDITIONS
current reactor licensees comply with the requirements of section 50.54(hh)(2) through conditions on their operating licenses; LBP-11-21, 74 NRC 115 (2011)
licensee may take reasonable action that departs from a license condition or a technical specification in an emergency when the action is immediately needed to protect the public health and safety and no action consistent with license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent; DD-11-6, 74 NRC 420 (2011)
NRC has the authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation; CLI-11-10, 74 NRC 251 (2011)
NRC Staff has authority to require implementation of non-aging-management severe accident mitigation alternatives through its current licensing basis backfit review under Part 50 or through setting conditions of the license renewal; LBP-11-17, 74 NRC 11 (2011)
NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its current licensing basis, which can be adjusted by future Commission order or by modification to the facility's operating license outside the renewal proceeding; CLI-11-11, 74 NRC 427 (2011); LBP-11-35, 74 NRC 701 (2011)
the current licensing basis of an operating license shall continue during the license renewal period, but these conditions may be supplemented or amended as necessary to protect the environment during the term of the renewed license and will be derived from information contained in the supplement to the environmental report, as analyzed and evaluated in the NRC record of decision; LBP-11-17, 74 NRC 11 (2011)
LICENSE EXPIRATION
a power reactor licensee may preserve its license by filing a renewal application at least 5 years before its license is set to expire, affording NRC Staff ample time to complete the required environmental and safety reviews; LBP-11-30, 74 NRC 627 (2011)
when licensee has made timely and sufficient application for a renewal, a license with reference to an activity of a continuing nature does not expire until the application has been finally determined by the agency; LBP-11-30, 74 NRC 627 (2011)
LICENSE RENEWAL APPLICATIONS
applicant must update its LRA annually to reflect changes in its current licensing basis, but such updating does not explicitly extend to the environmental report; LBP-11-32, 74 NRC 654 (2011)
when licensee has made timely and sufficient application for a renewal, a license with reference to an activity of a continuing nature does not expire until the application has been finally determined by the agency; LBP-11-30, 74 NRC 627 (2011)

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LICENSE RENEWAL PROCEEDINGS
challenges to the design of the nuclear power plant are outside the scope of a license renewal proceeding; LBP-11-23, 74 NRC 287 (2011)
See also Operating License Renewal; Operating License Renewal Proceedings
LICENSEE CHARACTER
absent documentary support, NRC has declined to assume that licensees will contravene its regulations; CLI-11-9, 74 NRC 233 (2011)
See also Management CHARACTER AND COMPETENCE
LICENSEE EVENT REPORTS
relief valve failure and inoperability found during the refueling outage, which potentially affected the ability of the SRVs to satisfy design actuation requirements, meets the requirements for an LER; DD-11-6, 74 NRC 420 (2011)
the current licensing basis includes licensee's commitments remaining in effect that were made in docketed licensing correspondence such as licensee responses to NRC bulletins, generic letters, and enforcement actions, as well as licensee commitments documented in NRC safety evaluations or licensee event reports; LBP-11-21, 74 NRC 115 (2011)
LICENSEES
protecting against the threat of air attacks is not within licensees' responsibilities because a private security force cannot reasonably be expected to defend against such attacks and adequate protection is ensured through the actions of other federal agencies with defense capabilities and air-safety expertise; CLI-11-4, 74 NRC 1 (2011)
LICENSING BOARD ORDERS
a board order is appealable when it disposes of a major segment of the case or terminates a party's right to participate; CLI-11-10, 74 NRC 251 (2011)
LICENSING BOARDS, AUTHORITY
a board's authority is not confined to a specific set of previously admitted contentions, but rather is sufficient to permit it to keep adjudication open to take account of the dynamic nature of the licensing process; LBP-11-22, 74 NRC 259 (2011)
although a board may view petitioner's supporting information in a light favorable to the petitioner, it cannot do so by ignoring NRC contention admissibility rules, which require petitioner (not the board) to supply all of the required elements for a valid intervention petition; LBP-11-20, 74 NRC 65 (2011)
boards (as opposed to the Commission) are not empowered to grant a request to suspend a licensing proceeding pending disposition of a rulemaking petition; LBP-11-33, 74 NRC 675 (2011)
boards are authorized to refer a ruling to the Commission if the board determines that the decision or ruling involves a novel issue that merits Commission review at the earliest opportunity; LBP-11-32, 74 NRC 654 (2011)
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of the NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 499 (2011)
boards cannot reconstruct intervenor's pleadings to find that they might be interpreted to satisfy the requirements for reopening a record where the intervenor itself has explicitly argued it need not; LBP-11-20, 74 NRC 65 (2011)
boards may not raise issues sua sponte when the sole intervenor has withdrawn from the proceeding; LBP-11-22, 74 NRC 259 (2011)
boards may take official notice of any fact of which a court of the United States may take judicial notice or of any technical or scientific fact within the knowledge of the Commission as an expert body; LBP-11-20, 74 NRC 65 (2011)
boards must exercise all the powers necessary to control the prehearing and hearing process, to avoid delay, and to maintain order; LBP-11-22, 74 NRC 259 (2011)
contention pleading rules are designed to ensure that only well-defined issues are admitted for hearing and a board should not add material not raised by a petitioner in order to render a contention admissible; CLI-11-11, 74 NRC 427 (2011)
for the mandatory uncontested proceeding on a uranium enrichment facility license, a licensing board is to conduct a simple sufficiency review rather than a de novo review on both safety and environmental issues; LBP-11-26, 74 NRC 499 (2011)

hearing notices are the means by which the Commission identifies the subject matters of the hearings and delegates to the boards the authority to conduct proceedings; LBP-11-22, 74 NRC 259 (2011)
in a mandatory hearing, a licensing board must narrow its inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance; LBP-11-26, 74 NRC 499 (2011)
licensing boards lack authority to direct the NRC Staff's nonadjudicatory actions; CLI-11-14, 74 NRC 801 (2011); LBP-11-30, 74 NRC 627 (2011)
licensing boards lack authority to direct the Secretary's administrative activities regarding the handling of documents; CLI-11-13, 74 NRC 635 (2011)
licensing boards may certify novel legal or policy questions to the Commission; CLI-11-5, 74 NRC 141 (2011)
NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient; LBP-11-26, 74 NRC 499 (2011)
the Commission generally defers to boards on case management issues; CLI-11-13, 74 NRC 635 (2011)
the Commission, but not a licensing board, has the power to address a protracted delay in the proceeding and to direct appropriate remedial measures; LBP-11-30, 74 NRC 627 (2011)

LICENSING BOARDS, JURISDICTION
a newly constituted board applied the reopening standard to new contentions filed after the prior proceeding was terminated for want of pending or admitted contentions; LBP-11-22, 74 NRC 259 (2011)
applying the rule of statutory construction that the mention of one thing implies the exclusion of another, the fact that the regulation sets forth three specific circumstances in which a board's jurisdiction ends implies that jurisdiction does not end in other circumstances not listed; LBP-11-22, 74 NRC 259 (2011)
boards may exercise only the jurisdiction conferred upon them by the Commission; LBP-11-22, 74 NRC 259 (2011)
hearing notices are the means by which the Commission identifies the subject matter of the hearings and delegates to the boards the authority to conduct proceedings; LBP-11-22, 74 NRC 259 (2011)
intervenor's failure to address the reopening standards in 10 C.F.R. 2.326 creates a yawning deficiency in its submissions because the evidentiary record has been closed and the board's jurisdiction in the proceeding does not extend beyond the narrow scope of the remand; LBP-11-20, 74 NRC 65 (2011)
where an amended version of a dismissed contention is pending before the board, the board retains jurisdiction to decide whether to admit the proposed contention; LBP-11-22, 74 NRC 259 (2011)
where the hearing notice does not restrict the hearing to any particular set of issues, the hearing should be understood as encompassing all issues raised by a party to the licensing proceeding that may properly be litigated under Atomic Energy Act § 189a; LBP-11-22, 74 NRC 259 (2011)

LICENSING SUPPORT NETWORK
the licensing board directed parties defending depositions to make efforts to identify and obtain Licensing Support Network documents that must be indexed for the benefit of other parties and to circulate those indexes as soon as practicable; CLI-11-13, 74 NRC 635 (2011)

LICENSING, PERFORMANCE-BASED
past or current performance could inform the review of a license renewal application; CLI-11-11, 74 NRC 427 (2011)

LIMITED APPEARANCE STATEMENTS
boards may entertain oral and written limited appearance statements from members of the public in connection with a mandatory uncontested proceeding; LBP-11-26, 74 NRC 499 (2011)

LOSS OF LARGE AREAS
combined license applications must include a description and plans for implementation of the guidance and strategies required by section 50.54(hh)(2) for severe accident mitigation; CLI-11-9, 74 NRC 233 (2011)
contentions that challenge applicant's compliance with the LOLA requirements of 10 C.F.R. 50.54(hh)(2) are not admissible because they are not within the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)

licensees must develop and implement guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities in case of loss of large areas of the plant due to explosions or fire; CLI-11-5, 74 NRC 141 (2011)
section 52.80(d) mandates compliance with the agency's LOLA requirements in 10 C.F.R. 50.54(hh)(2), but does not apply to a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
MANAGEMENT CHARACTER AND COMPETENCE
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 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; CLI-11-11, 74 NRC 427 (2011)
admission of a management integrity contention relied on references to a serious incident involving shutdown of the reactor, management responsible for the incident remaining in place, and a purported climate of reprisals for bringing forward safety issues, and reference to at least one expert witness in support of the contention; CLI-11-11, 74 NRC 427 (2011)
conceptual issues such as operational history, quality assurance, quality control, management competence, and human factors are excluded from license renewal review in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components; CLI-11-11, 74 NRC 427 (2011)
for management integrity and character to be a viable contention, there must be a direct and obvious relationship between these issues and the challenged licensing action; CLI-11-8, 74 NRC 214 (2011)
inspection reports could be seen as objective evidence that applicant may not adequately manage aging in the future; CLI-11-11, 74 NRC 427 (2011)
this issue is beyond the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
to the extent petitioner believes there are existing management competence questions that merit immediate action, then its remedy is to direct the Staff's attention to those matters by filing a request for action in accordance with 10 C.F.R. 2.206; CLI-11-11, 74 NRC 427 (2011)
See also Licensee Character
MANDATORY HEARINGS
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of the NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 499 (2011)
boards may entertain oral and written limited appearance statements from members of the public in connection with a mandatory uncontested proceeding; LBP-11-26, 74 NRC 499 (2011)
Commission discussion regarding alternative site review supplements the environmental impact statement; LBP-11-26, 74 NRC 499 (2011)
for the mandatory uncontested proceeding on a uranium enrichment facility license, a licensing board is to conduct a simple sufficiency review rather than a de novo review on both safety and environmental issues; LBP-11-26, 74 NRC 499 (2011)
licensing boards must narrow their inquiry to those topics or sections in Staff documents that they deem most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance; LBP-11-26, 74 NRC 499 (2011)
NRC needs to conduct only a single licensing action and adjudicatory proceeding to authorize construction and operation and a mandatory hearing regarding the application and the Staff's associated safety and environmental reviews, despite the absence of a petitioner challenging applicant's request; LBP-11-26, 74 NRC 499 (2011)
NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient; LBP-11-26, 74 NRC 499 (2011)
MATERIAL CONTROL AND ACCOUNTING
licensees must establish and maintain systems to protect against acts of radiological sabotage and to prevent the theft or diversion of special nuclear material; CLI-11-4, 74 NRC 1 (2011)

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MATERIAL INFORMATION
applicants shall notify NRC of information identified by the applicant as having, for the regulated activity, a significant implication for public health and safety or common defense and security; LBP-11-32, 74 NRC 654 (2011)
information provided to NRC by an applicant must be complete and accurate in all material respects; LBP-11-32, 74 NRC 654 (2011)
MATERIALITY
a material issue is one where resolution of the dispute would make a difference in the outcome of the licensing proceeding; LBP-11-23, 74 NRC 287 (2011)
a SAMA contention's admissibility is based on whether it purports to show that an additional SAMA should have been identified as potentially cost-beneficial; CLI-11-11, 74 NRC 427 (2011)
boards accord each exhibit weight to the extent it is relevant, material, and reliable; LBP-11-18, 74 NRC 29 (2011)
where the hearing notice does not restrict the hearing to any particular set of issues, the hearing should be understood as encompassing all issues raised by a party to the licensing proceeding that may properly be litigated under Atomic Energy Act § 189a; LBP-11-22, 74 NRC 259 (2011)
MATERIALS LICENSE AMENDMENT APPLICATIONS
if NRC Staff finds that an application does not comply with regulatory requirements, it must inform applicant in writing of the nature of any deficiencies or the reason for the proposed denial and the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
if the 20-day deadline for requesting a hearing in 10 C.F.R. 2.103(b) applies, NRC Staff's failure to comply with its own responsibilities under that provision bars Staff from invoking it; LBP-11-19, 74 NRC 61 (2011)
request for hearing on Staff denial of permission to use an alternative method for demonstrating decommissioning funding assurance is granted; LBP-11-19, 74 NRC 61 (2011)
MATERIALS LICENSE AMENDMENT PROCEEDINGS
completion of NRC Staff's final environmental review document always must precede the conduct of hearings on environmental issues; LBP-11-30, 74 NRC 627 (2011)
MATERIALS LICENSE APPLICATIONS
Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment; LBP-11-26, 74 NRC 499 (2011)
MATERIALS LICENSES
for a proposed nuclear materials-related activity, commencement of construction relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance is grounds for denial of the authorization to conduct that activity; LBP-11-26, 74 NRC 499 (2011)
preconstruction activities that are allowed under Part 50 are also allowed for materials licenses; LBP-11-26, 74 NRC 499 (2011)
METEOROLOGICAL FACTORS
accounting for the meteorological patterns, atmospheric transport modeling, and data issues raised by intervenor cannot credibly alter which severe accident mitigation alternatives are potentially cost-beneficial to implement; LBP-11-18, 74 NRC 29 (2011)
sea-breeze effect and hot-spot effect must cause the expected average offsite damages to increase by at least a factor of 2 for the next most costly severe accident mitigation alternative to be cost-effective; LBP-11-18, 74 NRC 29 (2011)
MONITORING
as a matter of law and logic, if applicant's enhanced monitoring program is inadequate, then applicant's unenhanced monitoring program was a fortiori inadequate, and intervenor had a regulatory obligation to challenge it in its original petition to intervene; LBP-11-20, 74 NRC 65 (2011)
MOOTNESS
alleged defects in applicant's environmental report may be mooted by the content of NRC's environmental impact statement or supplemental environmental impact statement; LBP-11-28, 74 NRC 604 (2011)
contention dismissal based on mootness is a jurisdictional ruling, not a decision on the merits of the claim; LBP-11-22, 74 NRC 259 (2011)

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MOTIONS
although NRC rules require that motions be addressed to the presiding officer when a proceeding is pending, suspension motions are best addressed to the Commission; CLI-11-5, 74 NRC 141 (2011)
failure to read NRC regulations carefully does not constitute good cause for accepting late-filed motions; LBP-11-34, 74 NRC 685 (2011)
parties' other professional obligations do not relieve them of their obligations to meet regulatory deadlines; LBP-11-34, 74 NRC 685 (2011)
MOTIONS TO REOPEN
a heavier burden applies to motions to reopen than to proponents of contentions in ongoing proceedings; CLI-11-5, 74 NRC 141 (2011)
a motion relating to a contention not previously in controversy among the parties must also satisfy the requirements for nontimely contentions in section 2.309(c); CLI-11-8, 74 NRC 214 (2011)
a motion to file new or amended contentions must address the motion to reopen standards after an intervention petition has been denied; LBP-11-20, 74 NRC 65 (2011)
a motion to reopen relating to a new contention must also satisfy the requirements for nontimely contentions in section 2.309(c); LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011)
a party may move to reopen the case to allow it to litigate a new version of a previously rejected contention, even if the licensing board has closed the evidentiary record and the Commission has issued its final decision authorizing the Staff to issue the license for the proposed facility; LBP-11-22, 74 NRC 259 (2011)
a request for hearing regarding a newly proffered contention cannot be admitted unless it satisfies the stringent standards for reopening the record; LBP-11-20, 74 NRC 65 (2011)
absence of a competent affidavit deprives the board of the ability or even the opportunity to substantively consider whether a materially different result would be obtained as is required by the regulatory reopening standards; LBP-11-23, 74 NRC 287 (2011)
affidavits setting forth the factual and/or technical bases for the claim that the reopening criteria have been met must address each of the criteria separately, with a specific explanation of why it has been met; LBP-11-20, 74 NRC 65 (2011)
affidavits shall set forth such facts as would be admissible in evidence and shall show affirmatively that the affiant is competent to testify to the matters stated therein; LBP-11-23, 74 NRC 287 (2011)
all of the criteria of 10 C.F.R. 2.326(a) must be satisfied; CLI-11-8, 74 NRC 214 (2011)
an expert's affidavit supporting a motion to reopen must supply the factual and legal foundation for assertions that the reopening criteria are satisfied; LBP-11-20, 74 NRC 65 (2011)
any contention, regardless of when it is filed, must meet the requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi); LBP-11-20, 74 NRC 65 (2011)
arguments that more conservative severe accident mitigation alternatives analysis needs to be performed, using 95th percentile computations, and not using a discount factor to evaluate the time effects of cleanup costs are policy matters that are solely within Commission jurisdiction and represent inadmissible challenges to binding Commission rulings; LBP-11-20, 74 NRC 65 (2011)
bare assertions and speculation do not supply the requisite support to satisfy the standards for reopening a record; CLI-11-8, 74 NRC 214 (2011); LBP-11-23, 74 NRC 287 (2011; LBP-11-35, 74 NRC 701 (2011)
boards cannot reconstruct intervenor's pleadings to find that they might be interpreted to satisfy the requirements for reopening a record where the intervenor itself has explicitly argued it need not; LBP-11-20, 74 NRC 65 (2011)
boards will not hunt for information that the agency's procedural rules require be explicitly identified and fully explained; CLI-11-8, 74 NRC 214 (2011)
contention regarding limitations and phenomena that were widely known, and should have been known to intervenor, at the outset of the proceeding, and thus could have been raised long ago, is untimely; LBP-11-23, 74 NRC 287 (2011)
during pendency of remand, intervenors 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; LBP-11-20, 74 NRC 65 (2011)
evidence put forth to support a motion to reopen must be relevant, material, and reliable; LBP-11-23, 74 NRC 287 (2011)

for a motion to be timely presented, movant must show that the issue sought to be raised could not have been raised earlier; LBP-11-20, 74 NRC 65 (2011)
in affidavits accompanying motions to reopen, each of the criteria must be separately addressed, with a specific explanation of why it has been met; CLI-11-8, 74 NRC 214 (2011); LBP-11-23, 74 NRC 287 (2011); LBP-11-35, 74 NRC 701 (2011)
in weighing the timeliness factors for motions to reopen, greatest weight is accorded to good cause for failure to file on time; CLI-11-8, 74 NRC 214 (2011)
intervenors' speculation that further review of certain issues might change some conclusions in the final safety evaluation report does not justify restarting the hearing process; LBP-11-23, 74 NRC 287 (2011)
intervenor's vague claim that it will rely on testimony from an expert witness and government documents does not provide the requisite concise statement of facts or expert support; LBP-11-23, 74 NRC 287 (2011)
like issues related to standing and contention admissibility, the question whether a pleading satisfies the requirements of section 2.326 and therefore justifies reopening a closed proceeding is a threshold issue; CLI-11-8, 74 NRC 214 (2011)
motions 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; CLI-11-8, 74 NRC 214 (2011); LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011); LBP-11-35, 74 NRC 701 (2011)
motions must be timely, address a significant safety or environmental issue, and demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially; LBP-11-20, 74 NRC 65 (2011); LBP-11-35, 74 NRC 701 (2011)
NRC's demanding regulatory requirements for reopening the record regarding contentions submitted after the record has closed must be satisfied; LBP-11-20, 74 NRC 65 (2011)
petitioner must act reasonably and promptly after learning of the new information on which its motion to reopen is based; LBP-11-23, 74 NRC 287 (2011)
petitioner proffers no new information on station blackout or mitigation measures, and the events therefore cannot form the basis for an assertion of timeliness of a motion to reopen; LBP-11-35, 74 NRC 701 (2011)
petitioner's assertion that recriticality is demonstrated by the relative quantities of radionuclides released is not self-evident and is clearly of the class of statements that must be supported by expert opinion; LBP-11-23, 74 NRC 287 (2011)
post-9/11 motion to reopen satisfied rules for reopening the record and for late-filed contentions, but contention involving a license amendment request for reconfiguring a spent fuel pool was inadmissible; CLI-11-5, 74 NRC 141 (2011)
proponents of contentions must challenge aspects of license applications with specificity, backed up with substantive technical support, mere conclusions or speculation being insufficient, but an even heavier burden applies to motions to reopen; LBP-11-35, 74 NRC 701 (2011)
rationale for NRC's policy of generally disfavoring the filing of new contentions at the eleventh hour of an adjudication is based on the doctrine of finality, which states that at some point, an adjudicatory proceeding must come to an end; LBP-11-20, 74 NRC 65 (2011)
rehearings are not matters of right, but are pleas to discretion; LBP-11-20, 74 NRC 65 (2011)
section 2.326(a)(3) expressly refers to a motion to reopen a closed record to consider additional evidence and newly proffered evidence; LBP-11-22, 74 NRC 259 (2011)
speculation that further review of certain issues might change some conclusions in the final safety evaluation report does not justify restarting the hearing process; LBP-11-23, 74 NRC 287 (2011)
supporting affidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; CLI-11-8, 74 NRC 214 (2011); LBP-11-35, 74 NRC 701 (2011)
the ability of a totally unfunded group to provide testimony from experts is not taken into account in ruling on motions to reopen; LBP-11-20, 74 NRC 65 (2011)
the presiding officer has discretion to consider an exceptionally grave issue even if untimely presented; LBP-11-20, 74 NRC 65 (2011)
the standard for a motion to reopen is measured using the Commission's test of whether it has been shown that a motion for summary disposition could be defeated; LBP-11-23, 74 NRC 287 (2011)

the standard for admitting a new contention after the record is closed is higher than for an ordinary late-filed contention; CLI-11-8, 74 NRC 214 (2011); LBP-11-20, 74 NRC 65 (2011); LBP-11-35, 74 NRC 701 (2011)
the standard for determining whether a materially different result would be obtained is measured using the Commission's test of whether it has been shown that a motion for summary disposition could be defeated; CLI-11-8, 74 NRC 214 (2011); LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011)
the standard for when an issue is "significant" in the context of reopening a closed record is the same as the standard for when supplementation of an environmental impact statement is required, i.e., the new and significant information must paint a seriously different picture of the environmental landscape; LBP-11-23, 74 NRC 287 (2011)
unsupported speculation that fresh analysis might lead NRC to require additional mitigation measures simply does not raise a significant safety issue or an exceptionally grave issue; LBP-11-23, 74 NRC 287 (2011)
when a motion to reopen is untimely, the section 2.326(a)(1) "exceptionally grave" test supplants the section 2.326(a)(2) "significant safety or environmental issue" test; CLI-11-8, 74 NRC 214 (2011)
where a motion to reopen relates to a contention not previously in controversy, the motion must demonstrate that the balance of the nontimely filing factors in section 2.309(c) favors granting the motion to reopen; LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011); LBP-11-35, 74 NRC 701 (2011)
whether a proposed alternative method for estimating a macroscopic frequency of occurrence of a severe offsite radiological release should have been used in the severe accident mitigation alternatives analysis could have been raised when the original license renewal application was submitted and thus is not timely; LBP-11-35, 74 NRC 701 (2011)
See also Reopening a Record

MUNITIONS
possession of depleted uranium at multiple installations without an NRC license and performance of decommissioning at a military installation without proper NRC authorization is a violation of 10 C.F.R. 40.3; DD-11-5, 74 NRC 399 (2011)
request for enforcement action against U.S. Army for post-license-expiration possession and release into the environment of depleted uranium from spent spotting rounds is granted in part and denied in part; DD-11-5, 74 NRC 399 (2011)

NATIONAL ENVIRONMENTAL POLICY ACT
a factor bolstering the need for a uranium enrichment facility is the recognized margin level that exists in the existing enrichment market to offset potential supply problems as well as maintain a level of reasonable market competition; LBP-11-26, 74 NRC 499 (2011)
a procedural requirement is imposed on an agency's decisionmaking process by mandating that an agency consider the environmental impacts of a proposed action and inform the public that it has taken those impacts into account in making its decision; LBP-11-17, 74 NRC 11 (2011)
agencies must prepare an environmental impact statement before approving any major federal action that will significantly affect the quality of the human environment; LBP-11-38, 74 NRC 817 (2011)
agencies need only address reasonably foreseeable impacts, not those that are remote and speculative or inconsequentially small; LBP-11-38, 74 NRC 817 (2011)
agencies should consider both the context and intensity of environmental impacts; LBP-11-26, 74 NRC 499 (2011)
agency decisions regarding the need to supplement an environmental impact statement based on new and significant information are subject to the rule of reason; LBP-11-26, 74 NRC 499 (2011)
an accident sequence with a probability conservatively estimated at 2.0×10^{-7} per reactor year is remote and speculative for the purposes of NEPA; LBP-11-38, 74 NRC 817 (2011)
applicant and Staff treatment of need for the construction and operation of uranium enrichment facilities should explain why the proposed action is needed, describe the underlying need for the proposed action, but should not be written merely as a justification of the proposed action or to alter the choice of alternatives; LBP-11-26, 74 NRC 499 (2011)
as a tool for assessing the significance of potential impacts, NRC regulations establish a standard scheme; LBP-11-26, 74 NRC 499 (2011)

as part of its NEPA analysis, NRC must provide information that addresses the purpose and need for the proposed action; LBP-11-26, 74 NRC 499 (2011)
because NEPA is premised on a rule of reason, NRC need only consider reasonable alternatives to a proposed action; LBP-11-26, 74 NRC 499 (2011)
because NRC has established a requirement to provide information to be used by NRC Staff in fulfillment of its obligation under NEPA, suitability of applicant's severe accident mitigation alternatives analysis must be judged by the requirements of NEPA; LBP-11-18, 74 NRC 29 (2011)
because severe accident mitigation alternatives analysis is site-specific, NEPA demands no fully developed plan or detailed examination of specific measures that will be used to mitigate adverse environmental effects; LBP-11-18, 74 NRC 29 (2011); LBP-11-23, 74 NRC 287 (2011)
because the full implications of the Fukushima events for U.S. facilities are unknown, any generic NEPA duty does not accrue; LBP-11-27, 74 NRC 591 (2011)
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of the NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 499 (2011)
consideration of alternatives is the heart of the environmental impact statement; LBP-11-35, 74 NRC 701 (2011)
cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time; LBP-11-26, 74 NRC 499 (2011)
direct impacts are those caused by the action that is the subject of the environmental impact statement, and occurring at the same time and place as that action, while indirect impacts are caused by the action at a later time or more distant place, yet are still reasonably foreseeable; LBP-11-26, 74 NRC 499 (2011)
ensuring continued availability of diverse, reliable sources of domestic enrichment services to provide low-enriched uranium for domestic power reactors supports a finding of need for the facility; LBP-11-26, 74 NRC 499 (2011)
environmental impact statements are not intended to be research documents, reflecting the frontiers of scientific methodology, studies, and data; LBP-11-38, 74 NRC 817 (2011)
environmental impact statements are subject to a rule of reason that grants the agency a degree of deference exempting it from examining impacts that it in good faith deems to be remote and speculative or inconsequentially small; LBP-11-39, 74 NRC 862 (2011)
environmental impacts of license renewal are classified as either Category 1, which are generically addressed by NRC's generic environmental impact statement for license renewal, or Category 2, which are analyzed on a site-specific basis; LBP-11-17, 74 NRC 11 (2011)
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evidence of significant actual utility commitments provides a compelling showing in support of the need for uranium enrichment facility; LBP-11-26, 74 NRC 499 (2011)
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for a proposed nuclear materials-related activity, commencement of construction relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance is grounds for denial of the authorization to conduct that activity; LBP-11-26, 74 NRC 499 (2011)
for NEPA contentions, the burden of proof shifts to NRC Staff, because NRC, not applicant, bears the ultimate burden of complying with NEPA; LBP-11-38, 74 NRC 817 (2011)
in assessing greenhouse gas impacts, NRC must devote its resources to taking a hard look at the issue; LBP-11-26, 74 NRC 499 (2011)
in parallel with NRC Staff's role under NEPA to assess environmental impacts, the Environmental Protection Agency possesses authority under the Clean Air Act to set numerical standards for air pollutants from emission sources; LBP-11-26, 74 NRC 499 (2011)
irrespective of the cause of the impact or the appropriate level of administrative scrutiny, for the purpose of NEPA evaluation, NRC regulations categorize impacts as direct, indirect, and cumulative; LBP-11-26, 74 NRC 499 (2011)

merely offering general statements about possible effects and some risk does not constitute a hard look at environmental impacts absent a justification regarding why more definitive information could not be provided; LBP-11-38, 74 NRC 817 (2011)
NEPA applies to agencies of the federal government, not to private parties such as applicants for NRC licenses; LBP-11-32, 74 NRC 654 (2011)
NEPA does not mandate how an agency must fulfill its obligations; LBP-11-23, 74 NRC 287 (2011)
NEPA does not mandate substantive results but rather imposes procedural restraints on agencies, requiring them to take a hard look at the environmental impacts of a proposed action and reasonable alternatives to that action; LBP-11-38, 74 NRC 817 (2011)
NEPA does not require a worst-case analysis; LBP-11-38, 74 NRC 817 (2011)
NEPA does not require NRC to consider the environmental consequences of hypothetical terrorist attacks on NRC-licensed facilities; CLI-11-11, 74 NRC 427 (2011)
NEPA has a dual purpose of ensuring that federal officials fully take into account the environmental consequences of a federal action before reaching major decisions and informing the public, Congress, and other agencies of those consequences; LBP-11-35, 74 NRC 701 (2011)
NEPA is a procedural statute and although it requires a hard look at mitigation measures, it does not, in and of itself, provide the statutory basis for their implementation; CLI-11-14, 74 NRC 801 (2011); LBP-11-39, 74 NRC 862 (2011)
NEPA only mandates an examination of reasonably foreseeable environmental impacts of the proposed project; LBP-11-33, 74 NRC 675 (2011)
NEPA should be construed in the light of reason if it is not to demand virtually infinite study and resources; LBP-11-38, 74 NRC 817 (2011)
NEPA's hard look at environmental impacts is tempered by a rule of reason; LBP-11-38, 74 NRC 817 (2011)
NEPA's procedural obligation is carried out through an agency's issuance of an environmental impact statement documenting the agency's hard look at potential environmental impacts of the proposed action and reasonable alternatives thereto; LBP-11-39, 74 NRC 862 (2011)
nothing in NEPA, which applies to agencies of the federal government, can be read to require an applicant to update its environmental report; LBP-11-34, 74 NRC 685 (2011)
NRC cannot delegate its NEPA responsibilities to a private party; LBP-11-32, 74 NRC 654 (2011)
NRC has established small, moderate, and large levels of impacts; LBP-11-26, 74 NRC 499 (2011)
NRC may decline to examine remote and speculative risks or events with inconsequentially small probabilities; LBP-11-26, 74 NRC 499 (2011)
NRC must assess the environmental impacts of a proposed facility, including those impacts associated with greenhouse gas emissions by the proposed facility; LBP-11-26, 74 NRC 499 (2011)
NRC must rigorously explore and objectively analyze environmental impacts, so that merely offering general statements about possible effects and some risk does not constitute a hard look absent a justification regarding why more definitive information could not be provided; LBP-11-26, 74 NRC 499 (2011)
NRC need not conduct a separate generic NEPA analysis regarding whether the Fukushima events constitute new and significant information under NEPA that must be analyzed as a part of the environmental review for new reactor and license renewal decisions; LBP-11-32, 74 NRC 654 (2011)
NRC Staff must consult with and obtain the comments of any federal agency that has jurisdiction by law or special expertise with respect to any environmental impact involved; LBP-11-26, 74 NRC 499 (2011)
NRC Staff must include new and significant information in a supplemental draft environmental impact statement; LBP-11-34, 74 NRC 685 (2011)
NRC Staff's obligations under Part 51 and NEPA are not limited to only those severe accident mitigation alternatives that address aging management; LBP-11-17, 74 NRC 11 (2011)
NRC, as an independent regulatory agency, is not bound by those portions of Council on Environmental Quality NEPA regulations that have a substantive impact on the way in which the Commission performs its regulatory functions; LBP-11-35, 74 NRC 701 (2011)
once NRC completes its environmental review, its record of decision must state whether NRC has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted, and summarize any

license conditions and monitoring programs adopted in connection with mitigation measures; LBP-11-17, 74 NRC 11 (2011)
particular decisions that an agency must reach are not mandated, but rather only the process the agency must follow while reaching decisions; LBP-11-17, 74 NRC 11 (2011)
previously recognized availability policy for domestic enrichment services supports a NEPA finding of a need for the construction and operation of uranium enrichment facilities; LBP-11-26, 74 NRC 499 (2011)
reasonable alternatives under NEPA are limited to those alternatives that will bring about the ends of the proposed action; LBP-11-21, 74 NRC 115 (2011)
regardless of their classification as direct, indirect, or cumulative, impacts that are reasonably foreseeable are to be assessed in an environmental impact statement; LBP-11-26, 74 NRC 499 (2011)
severe accident mitigation alternatives analysis is neither a worst-case nor a best-case impacts analysis, and the agency's obligations under NEPA are tempered by a practical rule of reason; LBP-11-18, 74 NRC 29 (2011)
taking a hard look at environmental impacts fosters informed decisionmaking and public participation and thus ensures that the agency does not act upon incomplete information, only to regret its decision after it is too late to correct it; LBP-11-38, 74 NRC 817 (2011)
the "rule of reason" is a judicial device to ensure that common sense and reason are not lost in the rubric of regulation; LBP-11-26, 74 NRC 499 (2011)
the aging-based safety review set out in Part 54 is analytically separate from Part 51's environmental inquiry and does not in any sense restrict NEPA; LBP-11-17, 74 NRC 11 (2011)
the environmental impact statement's hard look must examine reasonably foreseeable environmental impacts emanating from the proposed action; LBP-11-39, 74 NRC 862 (2011)
the full implications of the Fukushima accident for U.S. facilities are unknown, and thus any generic NEPA duty, if one is appropriate at all, does not accrue now; LBP-11-33, 74 NRC 675 (2011)
the NEPA review in license renewal proceedings is not limited to aging management-related issues; LBP-11-17, 74 NRC 11 (2011)
the purpose of NEPA is to help public officials make decisions that are based on understanding of environmental consequences, and take decisions that protect, restore, and enhance the environment; LBP-11-23, 74 NRC 287 (2011)
the rule of reason is inherent in NEPA and its implementing regulations; LBP-11-38, 74 NRC 817 (2011)
there is no NEPA requirement to use the best scientific methodology; LBP-11-38, 74 NRC 817 (2011)
to evaluate an operating license renewal application, NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54 and the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 11 (2011)
until NRC defines and imposes on licensees new requirements arising from the Fukushima events, such requirements are highly speculative; LBP-11-33, 74 NRC 675 (2011)
within the geographic boundary of the Ninth Circuit, NRC may not exclude NEPA terrorism contentions categorically; CLI-11-11, 74 NRC 427 (2011)
NATIONAL HISTORIC PRESERVATION ACT
all adverse effects to any NRHP-eligible historic or cultural resource must be considered during any federal undertaking; LBP-11-26, 74 NRC 499 (2011)
NATIVE AMERICAN
areas of potential effect of a federal undertaking must be designated, and the lead federal agency must consult with the state historic preservation office regarding the presence and protection of historic and cultural resources in the designated area, as well as any federally recognized Native American groups with an ancestral interest in the property, to determine if resources important to the tribe are present; LBP-11-26, 74 NRC 499 (2011)
the federal government bears a trust responsibility to Native American tribes, and the NRC, as a federal agency, owes a fiduciary duty to tribes and their members; LBP-11-30, 74 NRC 627 (2011)
NEED FOR POWER
a license renewal environmental report is not required to include discussion of need for power; LBP-11-21, 74 NRC 115 (2011)

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NOTICE OF HEARING
although NRC regulations mandate that a petition contain the name, address, and telephone number of petitioner, the Commission's hearing notice advises prospective petitioners not to include personal privacy information, such as home addresses or home phone numbers, in their filings; LBP-11-21, 74 NRC 115 (2011)
hearing notices are the means by which the Commission identifies the subject matter of the hearings and delegates to the boards the authority to conduct proceedings; LBP-11-22, 74 NRC 259 (2011)
where the hearing notice does not restrict the hearing to any particular set of issues, the hearing should be understood as encompassing all issues raised by a party to the licensing proceeding that may properly be litigated under Atomic Energy Act § 189a; LBP-11-22, 74 NRC 259 (2011)
NOTIFICATION
licensee must notify NRC as soon as practical, and in all cases within 1 hour of the occurrence, of any deviation from a plant's technical specifications; DD-11-6, 74 NRC 420 (2011)
NRC GUIDANCE DOCUMENTS
acceptable methods for designing a radiological monitoring program and submitting required semiannual reports specifying principal radionuclide releases to unrestricted areas for the purpose of estimating maximum potential annual public doses from such releases are outlined; LBP-11-26, 74 NRC 499 (2011)
although NRC guidance documents are not legally binding, and compliance with them is not required, they describe an acceptable approach to compliance with NRC rules; CLI-11-4, 74 NRC 1 (2011)
information that should be provided in the environmental report and the environmental impact statement regarding a radiological monitoring program and monitoring program acceptance criteria is set forth; LBP-11-26, 74 NRC 499 (2011)
NRC POLICY
Criterion 25 of NRC's agreement state policy statement does not relate to substantive standards or the regulatory outcome of a pending license application, even where a license application has been pending at the NRC for an extended period; CLI-11-12, 74 NRC 460 (2011)
for suspension of licensing proceedings, petitioners must show that continuation of proceedings, pending consideration of a rulemaking petition, would jeopardize the public health and safety, prove an obstacle to fair and efficient decisionmaking, or prevent appropriate implementation of any pertinent rule or policy changes that might emerge; LBP-11-34, 74 NRC 685 (2011)
piecemeal appeals during ongoing licensing board proceedings are generally disfavored; CLI-11-6, 74 NRC 203 (2011)
rationale for NRC's policy of generally disfavoring the filing of new contentions at the eleventh hour of an adjudication is based on the doctrine of finality, which states that at some point, an adjudicatory proceeding must come to an end; LBP-11-20, 74 NRC 65 (2011)
the purpose of Criterion 25 of NRC's agreement state policy statement is to ensure that licensing records are transferred to and received by the new agreement state in an orderly manner that ensures that no pending licensing actions will be significantly delayed or that no records will be lost or misplaced as a result of the transition of authority; CLI-11-12, 74 NRC 460 (2011)
NRC STAFF
because it relates to Staff's position on the reviewability of the Board's decision, Staff's statement regarding its inclination not to revise the final supplemental environmental impact statement is presented for the first time in Staff's answer; CLI-11-14, 74 NRC 801 (2011)
for NEPA contentions, the burden of proof shifts to NRC Staff, because NRC, not applicant, bears the ultimate burden of complying with NEPA; LBP-11-38, 74 NRC 817 (2011)
in denying an exemption request, Staff is required to inform applicant of the deadline for seeking a hearing; LBP-11-19, 74 NRC 61 (2011)
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a federal agency would be acting arbitrarily and capriciously if it did not look at relevant data and sufficiently explain a rational nexus between the facts found in its review and the choice it makes as a result of that review; LBP-11-17, 74 NRC 11 (2011)
although sufficiency of the application and NRC Staff's environmental review of that application are proper targets of contentions, sufficiency of NRC Staff's safety review of the application is not; LBP-11-29, 74 NRC 612 (2011)

as part of its NEPA analysis, NRC must provide information that addresses the purpose and need for the proposed action; LBP-11-26, 74 NRC 499 (2011)
because NEPA is premised on a rule of reason, NRC need only consider reasonable alternatives to a proposed action; LBP-11-26, 74 NRC 499 (2011)
completion of NRC Staff's final environmental review document always must precede the conduct of hearings on environmental issues; LBP-11-30, 74 NRC 627 (2011)
for power reactors, NRC Staff review should encompass emissions from the uranium fuel cycle as well as from construction and operation of the facility to be licensed; LBP-11-26, 74 NRC 499 (2011)
if NRC Staff has not previously considered severe accident mitigation alternatives for the applicant's plant in an environmental impact statement or related supplement or in an environmental assessment, a consideration of SAMAs must be provided in license renewal applicant's environmental report; LBP-11-21, 74 NRC 115 (2011)
in a mandatory hearing, a licensing board must narrow its inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance; LBP-11-26, 74 NRC 499 (2011)
licensing boards are not empowered to superintend, to any extent, the conduct of Staff technical reviews; CLI-11-14, 74 NRC 801 (2011); LBP-11-30, 74 NRC 627 (2011)
NRC may decline to examine remote and speculative risks or events with inconsequentially small probabilities; LBP-11-26, 74 NRC 499 (2011)
NRC must rigorously explore and objectively analyze environmental impacts, so that merely offering general statements about possible effects and some risk does not constitute a hard look absent a justification regarding why more definitive information could not be provided; LBP-11-26, 74 NRC 499 (2011)
NRC reserves the right to review, as necessary, the rate of accumulation of decommissioning funds and to take additional actions, as appropriate on a case-by-case basis, to ensure an adequate accumulation of decommissioning funds; DD-11-7, 74 NRC 787 (2011)
NRC Staff must include new and significant information in the supplemental draft environmental impact statement; LBP-11-34, 74 NRC 685 (2011)
NRC's review of a COL application is the type of proposed action obliging the Staff to prepare an environmental impact statement or a supplement thereto; LBP-11-39, 74 NRC 862 (2011)
obligations under Part 51 and NEPA are not limited to only those severe accident mitigation alternatives that address aging management; LBP-11-17, 74 NRC 11 (2011)
once NRC completes its environmental review, its record of decision must state whether NRC has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted, and summarize any license conditions and monitoring programs adopted in connection with mitigation measures; LBP-11-17, 74 NRC 11 (2011)
Staff is empowered to issue requests for additional information relevant to an applicant's environmental report; LBP-11-32, 74 NRC 654 (2011); LBP-11-33, 74 NRC 675 (2011); LBP-11-34, 74 NRC 685 (2011)
Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient; LBP-11-26, 74 NRC 499 (2011)
sufficiency of the NRC's hard look at the benefits of severe accident mitigation alternatives in comparison to their costs is subject to litigation in a license renewal proceeding; LBP-11-17, 74 NRC 11 (2011)
taking a hard look at environmental impacts fosters both informed decisionmaking and informed public participation, and thus ensures that NRC does not act on incomplete information, only to regret its decision after it is too late to correct it; LBP-11-26, 74 NRC 499 (2011)
the aging-based safety review set out in Part 54 is analytically separate from Part 51's environmental inquiry and does not in any sense restrict NEPA; LBP-11-17, 74 NRC 11 (2011)
to evaluate an operating license renewal application, NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54 and the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 11 (2011)

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in parallel with NRC Staff's role under NEPA to assess environmental impacts, the Environmental Protection Agency possesses authority under the Clean Air Act to set numerical standards for air pollutants from emission sources; LBP-11-26, 74 NRC 499 (2011)
NRC addresses agreement-state performance concerns through its Integrated Materials Performance Evaluation Program process or through an independent agreement-state performance concern evaluation, depending on the performance concern raised; CLI-11-12, 74 NRC 460 (2011)
NRC cannot delegate its NEPA responsibilities to a private party; LBP-11-32, 74 NRC 654 (2011)
NRC defers to other agencies with greater expertise on an issue; CLI-11-4, 74 NRC 1 (2011)
NRC has clear statutory authority to regulate the construction and operation of a uranium enrichment facility; LBP-11-26, 74 NRC 499 (2011)
NRC has discretion to resolve issues generically by rulemaking; CLI-11-11, 74 NRC 427 (2011)
NRC has the authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation; CLI-11-8, 74 NRC 214 (2011); CLI-11-10, 74 NRC 251 (2011)
NRC is bound by the unambiguous language of its own regulations; LBP-11-22, 74 NRC 259 (2011)
NRC may enter into agreements with the governor of any state providing for transfer of regulatory authority to the state over specified categories of nuclear material; CLI-11-12, 74 NRC 460 (2011)
NRC may impose reasonable requirements on new contentions when those requirements are related to legitimate agency goals such as avoiding needless duplication and delay; LBP-11-22, 74 NRC 259 (2011)
NRC may not, over the objections of a state desiring jurisdiction and for reasons other than health and safety or compatibility, retain regulatory authority over pending applications involving a nuclear materials category otherwise transferred to a state; CLI-11-12, 74 NRC 460 (2011)
NRC reserves the right to review, as necessary, the rate of accumulation of decommissioning funds and to take additional actions, as appropriate on a case-by-case basis, to ensure an adequate accumulation of decommissioning funds; DD-11-7, 74 NRC 787 (2011)
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NRC Staff has authority to require implementation of non-aging-management severe accident mitigation alternatives through its current licensing basis backfit review under Part 50 or through setting conditions of the license renewal; LBP-11-17, 74 NRC 11 (2011)
NRC, as an independent regulatory agency, is not bound by those portions of Council on Environmental Quality NEPA regulations that have a substantive impact on the way in which the Commission performs its regulatory functions; LBP-11-35, 74 NRC 701 (2011)
NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its current licensing basis, which can be adjusted by future Commission order or by modification to the facility's operating license outside the renewal proceeding; CLI-11-5, 74 NRC 141 (2011)
parties should not seek interlocutory review by invoking the grounds under which the Commission might exercise its supervisory authority; CLI-11-14, 74 NRC 801 (2011)
the Atomic Energy Act does not grant NRC the discretion to eliminate from the hearing, material issues in its licensing decision; LBP-11-22, 74 NRC 259 (2011)
the Commission exercises its inherent supervisory authority to direct the board to complete all necessary and appropriate case management activities, including disposal of all matters currently pending before it and comprehensively documenting the full history of the adjudicatory proceeding; CLI-11-7, 74 NRC 212 (2011)
the Commission may consider requests to suspend or hold proceedings in abeyance pursuant to its inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 141 (2011)
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to the extent NRC's review of the Fukushima accident leads to new rules applicable to any pending application, the Commission has sufficient authority and time to apply them to any new license that may be issued; CLI-11-5, 74 NRC 141 (2011)
with respect to new reactor licenses, the Commission has authority to ensure that certified designs and combined licenses include appropriate Commission-directed changes before operation; CLI-11-6, 74 NRC 203 (2011)
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boards may take official notice of any fact of which a court of the United States may take judicial notice or of any technical or scientific fact within the knowledge of the Commission as an expert body; LBP-11-20, 74 NRC 65 (2011)
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applicants must include in their environmental report any new and significant information regarding the environmental impacts of license renewal of which applicant is aware; LBP-11-29, 74 NRC 612 (2011)
OPERATING LICENSE AMENDMENT PROCEEDINGS
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portion of a contention asserting that applicant failed to consider the results of a particular study in its SAMA analysis is admissible; CLI-11-11, 74 NRC 427 (2011)
OPERATING LICENSE AMENDMENTS
NRC must grant a hearing upon the request of any person whose interest may be affected by the proceeding and admit any such person as a party to such proceeding; LBP-11-29, 74 NRC 612 (2011)
section 51.53(c)(3)(iv) does not apply to license amendment applicants requesting a power uprate; LBP-11-29, 74 NRC 612 (2011)
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in an uncontested proceeding, the Commission would informally review the Staff recommendations, and the license would issue only after Commission action; CLI-11-5, 74 NRC 141 (2011)
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a license renewal environmental report is not required to include discussion of need for power; LBP-11-21, 74 NRC 115 (2011)
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a severe accident mitigation alternative need not be implemented during a particular plant's license renewal review if the Commission is concurrently resolving the safety improvement achieved by that SAMA through a generic process attached to the agency's review of all plants' current licensing bases; LBP-11-17, 74 NRC 11 (2011)
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applicants must demonstrate how their programs will be effective in managing the effects of aging during the proposed period of extended operation, at a detailed component and structure level, rather than at a more generalized 'system level; LBP-11-21, 74 NRC 115 (2011)

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because SAMA analysis is site-specific, NEPA demands no fully developed plan or detailed examination of specific measures that will be used to mitigate adverse environmental effects; LBP-11-18, 74 NRC 29 (2011)
challenges to section 50.54(hh)(2) are neither germane to age-related degradation nor unique to the license renewal period; LBP-11-21, 74 NRC 115 (2011)
environmental impacts of license renewal are classified as either Category 1, which are generically addressed by the NRC's generic environmental impact statement for license renewal, or Category 2, which are analyzed on a site-specific basis; LBP-11-17, 74 NRC 11 (2011)
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for a license renewal to be issued, the Commission must determine that the applicable requirements of 10 C.F.R. Part 51, Subpart A have been satisfied; LBP-11-18, 74 NRC 29 (2011)
if NRC Staff has not already considered site-specific severe accident mitigation alternatives for a facility, they must be considered as part of applicant's environmental report and ultimately as part of NRC Staff's supplemental environmental impact statement; LBP-11-17, 74 NRC 11 (2011); LBP-11-18, 74 NRC 29 (2011); LBP-11-21, 74 NRC 115 (2011)
license renewal applicants must provide a plant-specific analysis of issues designated as Category 2; CLI-11-11, 74 NRC 427 (2011)
license renewal applicants need not provide a site-specific analysis of the environmental impacts of spent fuel storage in their environmental report; CLI-11-11, 74 NRC 427 (2011)
licensees are required to establish a program for qualifying certain defined electrical equipment; LBP-11-20, 74 NRC 65 (2011)
many safety questions that relate to plant aging become important during the extended renewal term since the design of some components may have been based upon a service lifetime of only 40 years; LBP-11-21, 74 NRC 115 (2011)
nonpower reactors, including research and test reactors, differ as a class from nuclear power plants and are not covered by 10 C.F.R. Part 54; CLI-11-11, 74 NRC 427 (2011)
NRC explicitly requires an emergency plan for initial reactor operating licenses but does not require them for license renewal; LBP-11-29, 74 NRC 612 (2011)
NRC's license renewal process concerns a particularized and limited inquiry into the potential impacts of an additional 20 years of nuclear power plant operation, not day-to-day operational issues; LBP-11-21, 74 NRC 115 (2011)
NRC's ongoing regulatory and oversight processes provide reasonable assurance that each facility complies with its current licensing basis, which can be adjusted by future Commission order or by modification to the facility's operating license outside the renewal proceeding; CLI-11-5, 74 NRC 141 (2011)
once NRC completes its environmental review, its record of decision must state whether NRC has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted, and summarize any license conditions and monitoring programs adopted in connection with mitigation measures; LBP-11-17, 74 NRC 11 (2011)
operating license renewal applicants must make a detailed assessment, conducted on passive, safety-related physical systems, structures, and components of the plant; LBP-11-21, 74 NRC 115 (2011)
operating license renewal applicants must reassess time-limited aging analyses made during the original license term and based upon the length of the original license term; LBP-11-21, 74 NRC 115 (2011)
Part 54 governs issuance of renewed operating licenses and renewed combined licenses for nuclear power plants licensed pursuant to sections 103 or 104b of the Atomic Energy Act and Title II of the Energy Reorganization Act; CLI-11-11, 74 NRC 427 (2011)
past or current performance could inform the review of a license renewal application; CLI-11-11, 74 NRC 427 (2011)

safety review is limited to the matters specified in 10 C.F.R. Part 54, which focus on the management of aging for certain systems, structures, and components, and the review of time-limited aging analyses; LBP-11-21, 74 NRC 115 (2011)
severe accident mitigation alternatives analysis is neither a worst-case nor a best-case impacts analysis, and the agency's obligations under NEPA are tempered by a practical rule of reason; LBP-11-18, 74 NRC 29 (2011)
severe accident mitigation alternatives review identifies and assesses possible plant changes such as improvements in hardware, training, or procedures that could cost-effectively mitigate the environmental impacts that would otherwise flow from a potential severe accident; LBP-11-17, 74 NRC 11 (2011)
site-specific consideration of severe accident mitigation alternatives is required at the time of license renewal unless a previous consideration of such alternatives regarding plant operation has been included in a final environmental impact statement, final environmental assessment, or a related supplement; CLI-11-5, 74 NRC 141 (2011)
Staff's ability to satisfy its NEPA obligations will be undermined if applicant either fails to include seismic information in its SAMA analysis, or, in omitting the information, fails to explain its absence and justify that the overall costs of obtaining it are exorbitant; CLI-11-11, 74 NRC 427 (2011)
the "reasonable assurance" standard for aging management programs does not require a 95% confidence level of compliance; LBP-11-18, 74 NRC 29 (2011)
the aging-based safety review set out in Part 54 is analytically separate from Part 51's environmental inquiry and does not in any sense restrict NEPA; LBP-11-17, 74 NRC 11 (2011)
the current licensing basis of an operating license shall continue during the license renewal period, but these conditions may be supplemented or amended as necessary to protect the environment during the term of the renewed license and will be derived from information contained in the supplement to the environmental report, as analyzed and evaluated in the NRC record of decision; LBP-11-17, 74 NRC 11 (2011)
the environmental report for this stage need not contain environmental analysis of Category 1 issues identified in Appendix B to Subpart A of 10 C.F.R. Part 51; LBP-11-21, 74 NRC 115 (2011)
the NEPA review in license renewal proceedings is not limited to aging management-related issues; LBP-11-17, 74 NRC 11 (2011)
to evaluate an operating license renewal application, the NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54 and the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 11 (2011)
OPERATING LICENSE RENEWAL PROCEEDINGS
a board erred in admitting a contention pertaining to a plant's safety culture; CLI-11-11, 74 NRC 427 (2011)
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 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; CLI-11-11, 74 NRC 427 (2011)
absent demonstration that petitioner's alleged special circumstances are unique to the facility rather than common to a large class of facilities, the request for waiver of regulations excluding spent fuel pool issues from license renewal proceedings is denied; LBP-11-35, 74 NRC 701 (2011)
admission of a management integrity contention relied on references to a serious incident involving shutdown of the reactor, management responsible for the incident remaining in place, and a purported climate of reprisals for bringing forward safety issues, and reference to at least one expert witness in support of the contention; CLI-11-11, 74 NRC 427 (2011)
an operating license may be renewed if NRC finds, among other things, that actions have been identified and have been or will be taken to manage the effects of aging during the period of extended operation on the functionality of certain identified structures and components; CLI-11-11, 74 NRC 427 (2011)
assertions of a need to implement filtered vented containment are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)

Category 1 issues are not subject to challenge in a relicensing proceeding, absent a waiver, because they involve environmental effects that are essentially similar for all plants and need not be assessed repeatedly on a site-specific basis; LBP-11-21, 74 NRC 115 (2011)
challenges to extensive damage mitigation guidelines are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
challenges to NRC's assumptions about operators' capability to mitigate an accident are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
challenges to NRC's previous rejection of the petitioner's concerns regarding environmental impacts of high-density pool storage of spent fuel are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
conceptual issues such as operational history, quality assurance, quality control, management competence, and human factors are excluded from license renewal review in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components; CLI-11-11, 74 NRC 427 (2011)
contentions that challenge applicant's compliance with the loss-of-large-areas requirements of 10 C.F.R. 50.54(hh)(2) are not admissible because they are not within the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
during pendency of remand, intervenors 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; LBP-11-20, 74 NRC 65 (2011)
emergency planning is neither germane to age-related degradation nor unique to the period covered by a license renewal application; LBP-11-35, 74 NRC 701 (2011)
entertaining contentions in a license renewal proceeding that challenge the current licensing basis would be both unnecessary and wasteful given ongoing agency oversight, review, and enforcement; LBP-11-21, 74 NRC 115 (2011)
for pending license renewal applications, where the period of extended operation will not begin for at least a year, there is no imminent threat to public health and safety that requires suspension of licensing proceedings or decisions; LBP-11-35, 74 NRC 701 (2011)
generic analysis remains appropriate for spent fuel pool accidents in license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
inspection reports could be seen as objective evidence that applicant may not adequately manage aging in the future; CLI-11-11, 74 NRC 427 (2011)
license renewal review is a limited one, focused on aging management issues; CLI-11-5, 74 NRC 141 (2011)
license renewal should not include a new, broad-scoped inquiry into compliance that is separate from and parallel to ongoing compliance oversight activity; CLI-11-11, 74 NRC 427 (2011)
litigability of the adequacy of applicant's efforts to address current operational issues is excluded from a license renewal proceeding; CLI-11-11, 74 NRC 427 (2011)
motion to admit a new contention arguing that applicant's environmental report fails to satisfy NEPA because it does not address findings and recommendations raised by Task Force Report on the Fukushima Dai-ichi accident is denied as premature and insufficiently focused on the application; LBP-11-28, 74 NRC 604 (2011)
NEPA imposes a procedural requirement on an agency's decisionmaking process by mandating that an agency consider the environmental impacts of a proposed action and inform the public that it has taken those impacts into account in making its decision; LBP-11-17, 74 NRC 11 (2011)
NRC shall require backfitting of a facility only when it determines that there is a substantial increase in the overall protection of the public health and safety or the common defense and security and that the costs of implementation are justified in view of this increased protection; LBP-11-17, 74 NRC 11 (2011)
NRC Staff has authority to require implementation of non-aging-management severe accident mitigation alternatives through its current licensing basis backfit review under Part 50 or through setting conditions of the license renewal; LBP-11-17, 74 NRC 11 (2011)
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 facility; LBP-11-21, 74 NRC 115 (2011)

petitioner's request to hold the proceeding in abeyance until the Commission resolves petitioner's request to suspend the proceeding pending evaluation of the Fukushima accident is denied; LBP-11-35, 74 NRC 701 (2011)
relevant issues for an additional 20 years of reactor plant operation differ from those when a reactor plant is first built and licensed; LBP-11-21, 74 NRC 115 (2011)
safety culture, operational history, quality assurance, quality control, management competence, human factors, and emergency planning issues are beyond the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
section 52.80(d) mandates compliance with the agency's loss-of-large-areas requirements in 10 C.F.R. 50.54(hh)(2), but does not apply to a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
sufficiency of the NRC's hard look at the benefits of severe accident mitigation alternatives in comparison to their costs is subject to litigation; LBP-11-17, 74 NRC 11 (2011)
suppositions/speculation regarding effectiveness of hydrogen control mechanisms are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
the only role for a court is to ensure that the agency has taken a hard look at environmental consequences; LBP-11-17, 74 NRC 11 (2011)
to waive generic assessment in NRC regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in a license renewal proceeding, the Commission must conclude that the rule's strict application would not serve the purpose for which it was adopted; CLI-11-11, 74 NRC 427 (2011)

OPERATING LICENSES
current reactor licensees comply with the requirements of section 50.54(hh)(2) through conditions on their operating licenses; LBP-11-21, 74 NRC 115 (2011)
section 50.54(hh)(2) applies to both current reactor licensees under Part 50 and new applicants for licenses under Part 52; LBP-11-21, 74 NRC 115 (2011)

ORAL ARGUMENT
a court cannot defer to interpretive proposals offered by counsel at oral argument and affirm on the basis of that reading when the statute does not plainly compel the reading being proposed; CLI-11-12, 74 NRC 460 (2011)
appellants seeking oral argument must show how oral argument will assist the Commission in reaching a decision; CLI-11-8, 74 NRC 214 (2011)
in its discretion, the Commission may allow oral argument upon the request of a party made in a petition for review, brief on review, or upon its own initiative; CLI-11-8, 74 NRC 214 (2011)
service of a filing is not complete until accompanied by a certificate of service and a request for oral argument; LBP-11-21, 74 NRC 115 (2011)
where the Commission has a thorough written record containing adequate information on which to base a decision, there is no need for oral argument; CLI-11-8, 74 NRC 214 (2011)

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See Licensing Board Orders

PARTIAL INITIAL DECISIONS
a PID is one rendered following an evidentiary hearing on one or more contentions, but which does not dispose of the entire matter; CLI-11-6, 74 NRC 203 (2011); CLI-11-10, 74 NRC 251 (2011)
parties may file a petition for review of licensing board full or partial initial decisions, both of which are considered to be final; CLI-11-14, 74 NRC 801 (2011)
the basis for allowing immediate appellate review of partial initial decisions rests on prior appeal board decisions permitting review of a licensing board ruling that disposes of a major segment of the case or terminates a party's right to participate; CLI-11-14, 74 NRC 801 (2011)

PERFORMANCE ASSESSMENT
NRC addresses agreement-state performance concerns through its Integrated Materials Performance Evaluation Program process or through an independent agreement-state performance concern evaluation, depending on the performance concern raised; CLI-11-12, 74 NRC 460 (2011)

PLEADINGS
in NRC proceedings, pro se litigants are generally not held to the same high standards of pleading and practice as parties with counsel; LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011)

it is not up to boards to search through pleadings or other materials to uncover arguments and support never advanced by intervenors; LBP-11-34, 74 NRC 685 (2011)
POLICY STATEMENTS
Criterion 25 of NRC's agreement state policy statement does not relate to substantive standards or the regulatory outcome of a pending license application, even where a license application has been pending at the NRC for an extended period; CLI-11-12, 74 NRC 460 (2011)
the purpose of Criterion 25 of NRC's agreement state policy statement is to ensure that licensing records are transferred to and received by the new agreement state in an orderly manner that ensures that no pending licensing actions will be significantly delayed or that no records will be lost or misplaced as a result of the transition of authority; CLI-11-12, 74 NRC 460 (2011)
See also NRC Policy
POWER UPRATE
extended power uprate proceedings necessarily trigger application of the 50-mile proximity presumption given that such license applications entail an obvious increase in the potential for offsite consequences; LBP-11-29, 74 NRC 612 (2011)
other than hypothesizing that there will be a failure of the nuclear reactor vessel because of increased stress brought by the proposed license amendment request, the contention does not provide sufficient information to show that a genuine dispute exists; LBP-11-29, 74 NRC 612 (2011)
section 51.53(c)(3)(iv) does not apply to license amendment applicants requesting a power uprate; LBP-11-29, 74 NRC 612 (2011)
PRECEDENTIAL EFFECT
although the Atomic Safety and Licensing Appeal Panel is no longer in existence, the decisions of its appeals boards continue to be binding to the degree they concern a regulation or regulatory matter that has not been revised or otherwise materially altered; LBP-11-34, 74 NRC 685 (2011)
PRECONSTRUCTION ACTIVITIES
activities that are allowed under Part 50 are also allowed for materials licenses; LBP-11-26, 74 NRC 499 (2011)
fugitive dust generation is discussed; LBP-11-26, 74 NRC 499 (2011)
there is no agency requirement that applicant submit a redress plan relative to preconstruction activities or, absent state or local requirements, take any remediation action regarding preconstruction activities if it decides not to complete the project or is denied agency authorization to construct and operate the facility; LBP-11-26, 74 NRC 499 (2011)
PRESIDING OFFICER, AUTHORITY
exceptionally grave issues may be considered in the discretion of the presiding officer even if untimely presented; LBP-11-20, 74 NRC 65 (2011); LBP-11-35, 74 NRC 701 (2011)
presiding officers have the duty to conduct a fair and impartial hearing according to law, to take appropriate action to control the prehearing and hearing process, to avoid delay and to maintain order, and have all the powers necessary to those ends; LBP-11-22, 74 NRC 259 (2011)
PRESIDING OFFICER, JURISDICTION
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Staff's deference to the expertise of other federal and state agencies to set and monitor the financial soundness of institutions issuing letters of credit is reasonable; CLI-11-4, 74 NRC 1 (2011)
the presumption attaches to the actions of government agencies; CLI-11-4, 74 NRC 1 (2011)
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if on the basis of the petition, affidavit, and any response provided for in 2.758(b), the presiding officer determines that a prima facie showing has been made, the presiding officer shall, before ruling thereon, certify the matter directly to the Commission; CLI-11-11, 74 NRC 427 (2011)
presiding officers must dismiss any petition for waiver that does not make a prima facie showing of special circumstances with respect to the subject matter of the particular proceeding; LBP-11-35, 74 NRC 701 (2011)
PRO SE LITIGANTS
in NRC proceedings, pro se litigants are generally not held to the same high standards of pleading and practice as parties with counsel; LBP-11-20, 74 NRC 65 (2011); LBP-11-23, 74 NRC 287 (2011)

SUBJECT INDEX

PROBABILISTIC RISK ASSESSMENT
an accident sequence with a probability conservatively estimated at 2.0×10^{-7} per reactor year is remote and speculative for the purposes of NEPA; LBP-11-38, 74 NRC 817 (2011)
applications for certified reactor designs include a probabilistic risk assessment for severe accidents; LBP-11-38, 74 NRC 817 (2011)
to evaluate the impact of a fault on current operations, a probabilistic risk assessment rather than a deterministic analysis is the accepted and standard practice in SAMA analyses; CLI-11-11, 74 NRC 427 (2011)
PROXIMITY PRESUMPTION
extended power uprate proceedings necessarily trigger application of the 50-mile proximity presumption given that such license applications entail an obvious increase in the potential for offsite consequences; LBP-11-29, 74 NRC 612 (2011)
in license amendment proceedings, petitioners may not claim standing simply upon a residence or visits near the plant, unless the proposed action quite obviously entails an increased potential for offsite consequences; LBP-11-29, 74 NRC 612 (2011)
in most licensing proceedings, petitioners are presumed to have standing if they live or have frequent contacts within 50 miles of the facility that is the subject of the proceeding; LBP-11-29, 74 NRC 612 (2011)
in reactor license renewal proceedings, 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 facility; LBP-11-21, 74 NRC 115 (2011)
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conceptual issues such as operational history, quality assurance, quality control, management competence, and human factors are excluded from license renewal review in favor of a safety-related review focusing on maintaining particular functions of certain physical systems, structures, and components; CLI-11-11, 74 NRC 427 (2011)
this issue is beyond the scope of a license renewal proceeding; LBP-11-21, 74 NRC 115 (2011)
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it is permissible for the final safety analysis report to give applicant several options for controlling and limiting radioactive effluents and radiation exposures, provided that each option is described with a

level of information sufficient to enable the Commission to reach a final conclusion; LBP-11-31, 74 NRC 643 (2011)
minimum detectable concentrations for gaseous effluent and evaporator condensate must be 5% or less of the concentrations listed in Part 20, App. B, tbl. 2; LBP-11-26, 74 NRC 499 (2011)
Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment; LBP-11-26, 74 NRC 499 (2011)
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Staff guidance documents outline acceptable methods for designing a radiological monitoring program and submitting required semiannual reports specifying principal radionuclide releases to unrestricted areas for the purpose of estimating maximum potential annual public doses from such releases; LBP-11-26, 74 NRC 499 (2011)
RADIOACTIVE WASTE DISPOSAL
motion for summary disposition is granted because there is no genuine issue or dispute as to any material fact and applicant's low-level radioactive waste plan satisfies the requirements of 10 C.F.R. 52.79(a); LBP-11-31, 74 NRC 643 (2011)
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motion for summary disposition is granted because there is no genuine issue or dispute as to any material fact and applicant's low-level radioactive waste plan satisfies the requirements of 10 C.F.R. 52.79(a); LBP-11-31, 74 NRC 643 (2011)
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ALARA is defined as every reasonable effort to maintain exposures to radiation as far below the dose limits in Part 20 as is practical consistent with the purpose for which the licensed activity is undertaken; CLI-11-12, 74 NRC 460 (2011)
if institutional controls fail and engineered barriers have degraded over a period of time, the dose to a member of the public will not exceed 100 mrem per year, or 500 mrem per year under certain circumstances, and is as low as reasonably achievable; CLI-11-12, 74 NRC 460 (2011)
it is permissible for the final safety analysis report to give applicant several options for controlling and limiting radioactive effluents and radiation exposures, provided that each option is described with a level of information sufficient to enable the Commission to reach a final conclusion; LBP-11-31, 74 NRC 643 (2011)
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Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment; LBP-11-26, 74 NRC 499 (2011)
Staff guidance documents outline acceptable methods for designing a radiological monitoring program and submitting required semiannual reports specifying principal radionuclide releases to unrestricted areas for the purpose of estimating maximum potential annual public doses from such releases; LBP-11-26, 74 NRC 499 (2011)

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challenging features of the AP1000 standard design is a matter for a design certification rulemaking, not a combined license proceeding; CLI-11-8, 74 NRC 214 (2011)
REACTOR VESSEL
other than hypothesizing that there will be a failure of the nuclear reactor vessel because of increased stress brought by the proposed license amendment request, the contention does not provide sufficient information to show that a genuine dispute exists; LBP-11-29, 74 NRC 612 (2011)
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"closed record" refers to a record developed at an evidentiary hearing; LBP-11-22, 74 NRC 259 (2011)
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RECORD OF DECISION
once NRC completes its environmental review, its ROD must state whether NRC has taken all practicable measures within its jurisdiction to avoid or minimize environmental harm from the alternative selected, and if not, to explain why those measures were not adopted, and summarize any license conditions and monitoring programs adopted in connection with mitigation measures; LBP-11-17, 74 NRC 11 (2011)
the adjudicatory record, board decision, and any Commission appellate decisions become, in effect, part of the final environmental impact statement; CLI-11-6, 74 NRC 203 (2011)
the current licensing basis of an operating license shall continue during the license renewal period, but these conditions may be supplemented or amended as necessary to protect the environment during the term of the renewed license and will be derived from information contained in the supplement to the environmental report, as analyzed and evaluated in the ROD; LBP-11-17, 74 NRC 11 (2011)
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once parties demonstrate standing, they will then be free to assert any contention, which, if proven, will afford them the relief they seek; LBP-11-21, 74 NRC 115 (2011)
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nonpower reactors, including research and test reactors, differ as a class from nuclear power plants and are not covered by 10 C.F.R. Part 54; CLI-11-11, 74 NRC 427 (2011)
NRC is bound by the unambiguous language of its own regulations; LBP-11-22, 74 NRC 259 (2011)
NRC looks to Council on Environmental Quality regulations for guidance, but is not bound by them; CLI-11-11, 74 NRC 427 (2011)
Part 51, not NEPA, is the source of the legal requirements applicable to the applicant's environmental report; LBP-11-32, 74 NRC 654 (2011)
Part 54 governs issuance of renewed operating licenses and renewed combined licenses for nuclear power plants licensed pursuant to sections 103 or 104b of the Atomic Energy Act and Title II of the Energy Reorganization Act; CLI-11-11, 74 NRC 427 (2011)
Part 70 establishes the basic regulatory framework that governs the licensing of a uranium enrichment facility; LBP-11-26, 74 NRC 499 (2011)
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petitioners may not raise in adjudicatory proceedings contentions attacking the agency's rules and regulations or contentions that are the subject of ongoing rulemakings; LBP-11-29, 74 NRC 612 (2011)
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petitioning parties may reply separately to each answer, especially considering that the answers may present different views or arguments; CLI-11-14, 74 NRC 801 (2011)
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licensee must notify NRC as soon as practical and in all cases within 1 hour of the occurrence, of any deviation from a plant's technical specification; DD-11-6, 74 NRC 420 (2011)
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power reactor licensees must report decommissioning funding assurance information to NRC at least once every 2 years; DD-11-7, 74 NRC 787 (2011)
relief valve failure and inoperability found during the refueling outage, which potentially affected the ability of the SRVs to satisfy design actuation requirements, meets the requirements for a licensee event report; DD-11-6, 74 NRC 420 (2011)
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Fukushima-related petitions for suspension of proceeding and rescission of regulations that make generic conclusions about environmental impacts of severe reactor and spent fuel pool accidents and that preclude consideration of those issues in individual licensing proceedings are denied; LBP-11-39, 74 NRC 862 (2011)
if petitioner is concerned about the sufficiency of the ongoing oversight of a nuclear power plant and its current evacuation plan, it has the option of requesting a modification, suspension, or revocation of its operating license; LBP-11-29, 74 NRC 612 (2011)
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the ALARA principle, either as a general regulatory principle or as used in NRC's license termination rule, does not incorporate or call for any comparative analysis of doses from restricted and unrestricted release; CLI-11-12, 74 NRC 460 (2011)
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parties seeking interlocutory review must show that the issue to be reviewed 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-11-14, 74 NRC 801 (2011)
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NEPA's hard look at environmental impacts is tempered by a rule of reason; LBP-11-38, 74 NRC 817 (2011)
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for contentions that fall within the facility's current licensing basis, petitioner may seek action on its concerns by either filing a petition for rulemaking under 10 C.F.R. 2.802 or submitting an enforcement petition under 10 C.F.R. 2.206; LBP-11-21, 74 NRC 115 (2011)
for suspension of licensing proceedings, petitioners must show that continuation of proceedings, pending consideration of a rulemaking petition, would jeopardize the public health and safety, prove an obstacle to fair and efficient decisionmaking, or prevent appropriate implementation of any pertinent rule or policy changes that might emerge from NRC's continued evaluation of the impacts of the Fukushima accident; LBP-11-33, 74 NRC 675 (2011); LBP-11-34, 74 NRC 685 (2011)

licensing boards (as opposed to the Commission) are not empowered to grant a request to suspend a licensing proceeding pending disposition of a rulemaking petition; LBP-11-33, 74 NRC 675 (2011)
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the Commission may consider the rulemaking request of a nonparty as an exercise of its inherent supervisory powers over proceedings; CLI-11-5, 74 NRC 141 (2011)
to the extent that petitioner challenges the generic environmental impact statement, its remedy is a petition for rulemaking or a petition for a waiver of the rules based on circumstances; CLI-11-11, 74 NRC 427 (2011)
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a motion for summary disposition may be granted in a proceeding governed by Subpart G if filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with statements of the parties and affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; LBP-11-17, 74 NRC 11 (2011)
a motion to file new or amended contentions must address the motion to reopen standards after an intervention petition has been denied; LBP-11-20, 74 NRC 65 (2011)
a motion to reopen a closed record must be timely, address a significant safety or environmental issue, and demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially; LBP-11-20, 74 NRC 65 (2011)
a motion to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for the claim that the reopening criteria have been met; LBP-11-20, 74 NRC 65 (2011)
a motion to reopen that relates to a contention not previously in controversy among the parties must also satisfy the requirements for nontimely contentions in section 2.309(c); CLI-11-8, 74 NRC 214 (2011); LBP-11-23, 74 NRC 287 (2011)
a party may move to reopen the case to allow it to litigate a new version of a previously rejected contention, even if the licensing board has closed the evidentiary record and the Commission had issued its final decision authorizing the Staff to issue the license for the proposed facility; LBP-11-22, 74 NRC 259 (2011)
a proper showing of standing includes the name, address, and telephone number of petitioner, nature of petitioner's right under a relevant statute to be made a party, nature and extent of the petitioner's property, financial, or other interest in the proceeding, and possible effect of any decision or order that might be issued on petitioner's interest; LBP-11-21, 74 NRC 115 (2011)
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a request for hearing or petition for leave to intervene must explain proposed contentions with particularity; CLI-11-8, 74 NRC 214 (2011)
a request for hearing regarding a newly proffered contention cannot be admitted unless it satisfies the stringent standards for reopening the record; LBP-11-20, 74 NRC 65 (2011)
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boards cannot reconstruct intervenor's pleadings to find that they might be interpreted to satisfy the requirements for reopening a record where the intervenor itself has explicitly argued it need not; LBP-11-20, 74 NRC 65 (2011)
boards do not adjudicate disputed facts at the contention admission stage; LBP-11-21, 74 NRC 115 (2011)
boards may take official notice of any fact of which a court of the United States may take judicial notice or of any technical or scientific fact within the knowledge of the Commission as an expert body; LBP-11-20, 74 NRC 65 (2011)
boards should refer rulings that raise novel or legal policy issues that would benefit from Commission review; CLI-11-11, 74 NRC 427 (2011)
boards will not hunt for information that the agency's procedural rules require be explicitly identified and fully explained; CLI-11-8, 74 NRC 214 (2011)
briefs on appeal are limited to 30 pages, absent Commission order directing otherwise; CLI-11-8, 74 NRC 214 (2011)

briefs on appeal must conform to the requirements stated in 10 C.F.R. 2.341(c)(2); CLI-11-8, 74 NRC 214 (2011)
by filing proposed new or amended contention within the time specified in the initial scheduling order, petitioner satisfies timeliness requirements but would still have to satisfy the other requirements of section 2.309(f)(2) or section 2.309(c), as well as the contention admissibility requirements of 10 C.F.R. 2.309(f)(1); LBP-11-22, 74 NRC 259 (2011)
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contention admissibility requirements are strict by design to help assure that the NRC hearing process will be appropriately focused upon disputes that can be resolved in the adjudication; LBP-11-29, 74 NRC 612 (2011)
contention admissibility standards are deliberately strict, and any contention that does not satisfy NRC requirements will be rejected; CLI-11-8, 74 NRC 214 (2011)
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contention pleading rules are designed to ensure that only well-defined issues are admitted for hearing and a board should not add material not raised by a petitioner in order to render a contention admissible; CLI-11-11, 74 NRC 427 (2011)
contentions must be based on documents or other information available at the time the petition is to be filed, such as the application, supporting safety analysis report, environmental report or other supporting document filed by an applicant or licensee, or otherwise available to a petitioner; LBP-11-29, 74 NRC 612 (2011)
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contentions that neither explain how the application is inadequate nor identify which sections of the application are inadequate are inadmissible; LBP-11-21, 74 NRC 115 (2011)
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disfavor of piecemeal appeals leads the Commission to grant interlocutory review only upon a showing of extraordinary circumstances; CLI-11-14, 74 NRC 801 (2011)
each of the criteria for a motion to reopen must be separately addressed in an affidavit, with a specific explanation of why it has been met; CLI-11-8, 74 NRC 214 (2011); LBP-11-35, 74 NRC 701 (2011)
each organization member seeking representation must qualify for standing in his or her own right, the interests that the representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action; LBP-11-29, 74 NRC 612 (2011)
evaluation of a contention at the contention admissibility stage should not be confused with evaluation at the merits stage; CLI-11-8, 74 NRC 214 (2011)
even when a proposed new contention is not found timely, it may be admitted if it meets a balancing of the eight nontimely filing factors; LBP-11-39, 74 NRC 862 (2011)
failure of petitioner to cite even a single specific deficiency in the application precludes satisfaction of the specificity requirement of 10 C.F.R. 2.309(f)(1)(vi); LBP-11-29, 74 NRC 612 (2011)
failure to comply with any of the contention pleading requirements precludes admission of a contention; LBP-11-21, 74 NRC 115 (2011)
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filings not otherwise authorized by NRC rules are allowed only where necessity or fairness dictates; CLI-11-14, 74 NRC 801 (2011)
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for an admissible contention, petitioners do not have to prove outright that a SAMA analysis is deficient; CLI-11-11, 74 NRC 427 (2011)
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license renewal applicant's environmental report must contain a consideration of alternatives for reducing adverse impacts for all Category 2 license renewal issues in Appendix B; LBP-11-21, 74 NRC 115 (2011)
NEPA demands no fully developed plan or detailed examination of specific measures that will be employed to mitigate adverse environmental effects; LBP-11-18, 74 NRC 29 (2011); LBP-11-23, 74 NRC 287 (2011)
new information from studies of the Fukushima event as to potential consequences of a severe accident at a U.S. nuclear power plant is irrelevant to any uncertainty that might exist regarding which agency has authority over cleanup after a severe accident; LBP-11-20, 74 NRC 65 (2011)
NRC Staff's obligations under Part 51 and NEPA are not limited to only those SAMAs that address aging management; LBP-11-17, 74 NRC 11 (2011)
petitioner fails to specifically explain why a materially different result would have been likely had information currently available from the Fukushima accident been considered ab initio in the severe accident mitigation alternatives analysis or why that information presents a significant safety or environmental issue; LBP-11-35, 74 NRC 701 (2011)

portion of a contention asserting that applicant failed to consider the results of a particular study in its SAMA analysis is admissible; CLI-11-11, 74 NRC 427 (2011)
possible plant changes such as improvements in hardware, training, or procedures that could cost-effectively mitigate the environmental impacts that would otherwise flow from a potential severe accident are reviewed; LBP-11-17, 74 NRC 11 (2011)
SAMA analysis is a cost-benefit analysis, not a direct safety analysis, and thus does not raise any exceptionally grave issue; LBP-11-23, 74 NRC 287 (2011)
SAMA analysis is neither a worst-case nor a best-case impacts analysis, and the agency's obligations under NEPA are tempered by a practical rule of reason; LBP-11-18, 74 NRC 29 (2011)
sea-breeze effect and the hot-spot effect must cause the expected average offsite damages to increase by at least a factor of 2 for the next most costly SAMA to be cost-effective; LBP-11-18, 74 NRC 29 (2011)
showing merely that changes to the SAMA analysis results are possible or likely or probable is not enough to reopen an record; LBP-11-35, 74 NRC 701 (2011)
showing necessary to demonstrate that a materially different result in the outcome of the SAMA analysis would be or would have been likely had the newly proffered evidence been considered initially is discussed; LBP-11-35, 74 NRC 701 (2011)
site-specific consideration of severe accident mitigation alternatives is required at the time of license renewal unless a previous consideration of such alternatives regarding plant operation has been included in a final environmental impact statement, final environmental assessment, or a related supplement; CLI-11-5, 74 NRC 141 (2011)
Staff's ability to satisfy its NEPA obligations will be undermined if applicant either fails to include seismic information in its SAMA analysis, or, in omitting the information, fails to explain its absence and justify that the overall costs of obtaining it are exorbitant; CLI-11-11, 74 NRC 427 (2011)
sufficiency of the NRC's hard look at the benefits of SAMAs in comparison to their costs is subject to litigation in a license renewal proceeding; LBP-11-17, 74 NRC 11 (2011)
the final supplemental environmental impact statement must demonstrate that the NRC Staff has received sufficient information to take a hard look at severe accident mitigation alternatives; LBP-11-17, 74 NRC 11 (2011)
the goal of a SAMA analysis is to identify potential changes to a nuclear power plant or its operations that might reduce the risk or likelihood or impact, or both, of a severe reactor accident for which the benefit of implementing the changes outweighs the cost of the implementation; LBP-11-18, 74 NRC 29 (2011)
the required level of demonstration by petitioners of cost-effectiveness of other severe accident mitigation alternatives is case and issue specific; LBP-11-35, 74 NRC 701 (2011)
to evaluate the impact of a fault on current operations, a probabilistic risk assessment rather than a deterministic analysis is the accepted and standard practice in SAMA analyses; CLI-11-11, 74 NRC 427 (2011)
use of mean consequences in SAMA analysis is consistent with NRC policy and precedent, whereas the 95th percentile approach is akin to a worst-case scenario analysis, which is not required by NRC; LBP-11-18, 74 NRC 29 (2011)
whether a proposed alternative method for estimating a macroscopic frequency of occurrence of a severe offsite radiological release should have been used in the SAMA analysis could have been raised when the original license renewal application was submitted and thus is not timely; LBP-11-35, 74 NRC 701 (2011)

SEVERE ACCIDENT MITIGATION DESIGN ALTERNATIVES
severe accident mitigation alternatives are somewhat broader than SAMDAs, which focus on design changes and do not consider procedural modifications; LBP-11-38, 74 NRC 817 (2011)

SEVERE ACCIDENT MITIGATION DESIGN ALTERNATIVES ANALYSIS
adequacy of a SAMDA analysis is judged not by whether plainly better assumptions or methodologies could have been used or the analysis refined further but whether it looks genuinely plausible that inclusion of an additional factor or use of other assumptions or models may change the cost-benefit conclusions for the SAMDA analysis; LBP-11-38, 74 NRC 817 (2011)
issues surrounding SAMDAs that have been resolved by regulation may not be challenged in a combined license adjudication; CLI-11-6, 74 NRC 203 (2011)

SAMDA analyses examine whether implementing a SAMDA would decrease the probability-weighted consequences of severe accidents; LBP-11-38, 74 NRC 817 (2011)
scaling SAMDA implementation costs (inflation rate, regional cost-of-living adjustment, risk reduction factor) and implementation benefits (discount rate, power pricing data, power market effects, consumer impacts, power price spikes, loss of grid) is discussed; LBP-11-38, 74 NRC 817 (2011)
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request for cold shutdown because of inoperability of main steam safety relief valves is denied but petitioner's concern about the SRVs have been resolved; DD-11-6, 74 NRC 420 (2011)
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there is no agency requirement that applicant submit a redress plan relative to preconstruction activities or, absent state or local requirements, take any remediation action regarding preconstruction activities if it decides not to complete the project or is denied agency authorization to construct and operate the facility; LBP-11-26, 74 NRC 499 (2011)
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seismic avoidance areas are discussed; LBP-11-26, 74 NRC 499 (2011)
winter weather- and earthquake-related criteria are discussed; LBP-11-26, 74 NRC 499 (2011)
SPECIAL NUCLEAR MATERIALS
certifications of financial assurance, which are used by applicants seeking to possess smaller quantities of material, are governed by 10 C.F.R. 70.25(b)(2); CLI-11-4, 74 NRC 1 (2011)
depending on the quantity of material, Part 70 license applicants must submit either a decommissioning funding plan or a certification of financial assurance; CLI-11-4, 74 NRC 1 (2011)
possession limits associated with a certification of financial assurance are set forth in 10 C.F.R. 70.25(d); CLI-11-4, 74 NRC 1 (2011)
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absent demonstration that petitioner's alleged special circumstances are unique to the facility rather than common to a large class of facilities, the request for waiver of regulations excluding spent fuel pool issues from license renewal proceedings is denied; LBP-11-35, 74 NRC 701 (2011)
Fukushima-related petitions for suspension of proceeding and rescission of regulations that make generic conclusions about environmental impacts of severe reactor and spent fuel pool accidents and that preclude consideration of those issues in individual licensing proceedings are denied; LBP-11-39, 74 NRC 862 (2011)
generic analysis remains appropriate for spent fuel pool accidents in license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
post-9/11 motion to reopen satisfied rules for reopening the record and for late-filed contentions, but contention involving a license amendment request for reconfiguring a spent fuel pool was inadmissible; CLI-11-5, 74 NRC 141 (2011)
to waive the generic assessment in NRC regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in a license renewal proceeding, the Commission must conclude that the rule's strict application would not serve the purpose for which it was adopted; CLI-11-11, 74 NRC 427 (2011)
SPENT FUEL STORAGE
challenges to NRC's previous rejection of petitioner's concerns regarding environmental impacts of high-density pool storage of spent fuel are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)
license renewal applicants need not provide a site-specific analysis of the environmental impacts of spent fuel storage in their environmental report; CLI-11-11, 74 NRC 427 (2011)
spent fuel storage pool matters will be addressed, if studies of implications from Fukushima warrant, through more generic regulatory reform; LBP-11-35, 74 NRC 701 (2011)
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Fukushima-related contention based on an SRM are inadmissible because the SRM does not define or impose any new requirements arising from the Fukushima accident and thus fails to establish a genuine dispute on a material issue of law or fact; LBP-11-37, 74 NRC 774 (2011)
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applicant in a licensing proceeding must meet its burden of proof by a preponderance of the evidence; LBP-11-38, 74 NRC 817 (2011)

SUBJECT INDEX

STANDARD OF REVIEW
a federal agency would be acting arbitrarily and capriciously if it did not look at relevant data and sufficiently explain a rational nexus between the facts found in its review and the choice it makes as a result of that review; LBP-11-17, 74 NRC 11 (2011)
absent error of law or abuse of discretion, the Commission defers to licensing board rulings on contention admissibility; CLI-11-9, 74 NRC 233 (2011)
although the entire record is considered on appeal, including pleadings that appellants ask to be adopted by reference, the Commission's decision responds to the arguments made explicitly in the appellate brief; CLI-11-8, 74 NRC 214 (2011)
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of the NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 499 (2011)
disfavor of piecemeal appeals leads the Commission to grant interlocutory review only upon a showing of extraordinary circumstances; CLI-11-14, 74 NRC 801 (2011)
expansion of issues for litigation that results from a board action does not have a pervasive and unusual effect on the litigation; CLI-11-10, 74 NRC 251 (2011)
for the mandatory uncontested proceeding on a uranium enrichment facility license, a licensing board is to conduct a simple sufficiency review rather than a de novo review on both safety and environmental issues; LBP-11-26, 74 NRC 499 (2011)
in a mandatory hearing, a licensing board must narrow its inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance; LBP-11-26, 74 NRC 499 (2011)
in an uncontested operating license proceeding, the Commission would informally review the Staff recommendations, and the license would issue only after Commission action; CLI-11-5, 74 NRC 141 (2011)
in the absence of clear error or abuse of discretion, the Commission defers to its boards' rulings on threshold issues; CLI-11-8, 74 NRC 214 (2011)
NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient; LBP-11-26, 74 NRC 499 (2011)
parties seeking interlocutory review must show that the issue to be reviewed 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-11-14, 74 NRC 801 (2011)
review of a board's certified question that raises a significant and novel issue whose early resolution will materially advance the orderly disposition of the proceeding is granted; CLI-11-4, 74 NRC 1 (2011)
the Commission will defer to a board's rulings on contention admissibility absent an error of law or abuse of discretion; CLI-11-11, 74 NRC 427 (2011)
the Commission will grant a petition for review at its discretion, giving due weight to the existence of a substantial question with respect to one or more of the considerations of 10 C.F.R. 2.341(b)(4)(i)-(v); CLI-11-9, 74 NRC 233 (2011)
STANDING TO INTERVENE
a proper showing of standing includes the name, address, and telephone number of petitioner, nature of petitioner's right under a relevant statute to be made a party, nature and extent of petitioner's property, financial, or other interest in the proceeding, and possible effect of any decision or order that might be issued on petitioner's interest; LBP-11-21, 74 NRC 115 (2011)
although NRC regulations mandate that a petition contain the name, address, and telephone number of petitioner, the Commission's hearing notice advises prospective petitioners not to include personal privacy information, such as home addresses or home phone numbers, in their filings; LBP-11-21, 74 NRC 115 (2011)
extended power uprate proceedings necessarily trigger application of the 50-mile proximity presumption given that such license applications entail an obvious increase in the potential for offsite consequences; LBP-11-29, 74 NRC 612 (2011)

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-11-21, 74 NRC 115 (2011)
hearing requests must state petitioner's name, address, and telephone number, nature of its right under the applicable statutes to be made a party, nature and extent of property, financial, or other interest in the proceeding, and possible effect of any decision or order that may be issued on its interest; LBP-11-29, 74 NRC 612 (2011)
if petitioner fails to show standing pursuant to section 2.309(d), a board may grant discretionary standing when at least one requestor/petitioner has established standing and at least one admissible contention has been admitted so that a hearing will be held; LBP-11-29, 74 NRC 612 (2011)
in license amendment proceedings, petitioners may not claim standing simply upon a residence or visits near the plant, unless the proposed action quite obviously entails an increased potential for offsite consequences; LBP-11-29, 74 NRC 612 (2011)
in reactor license renewal proceedings, petitioner is presumed to have standing without the need to specifically plead injury, causation, and redressability if petitioner lives within 50 miles of the nuclear power facility; LBP-11-21, 74 NRC 115 (2011); LBP-11-29, 74 NRC 612 (2011)
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judicial concepts of standing require that petitioner 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-11-21, 74 NRC 115 (2011); LBP-11-29, 74 NRC 612 (2011)
once parties demonstrate standing, they will then be free to assert any contention, which, if proven, will afford them the relief they seek; LBP-11-21, 74 NRC 115 (2011); LBP-11-29, 74 NRC 612 (2011)
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STANDING TO INTERVENE, ORGANIZATIONAL
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-11-21, 74 NRC 115 (2011)
organizations may claim standing on their own behalf; LBP-11-29, 74 NRC 612 (2011)

STANDING TO INTERVENE, REPRESENTATIONAL
an organization must identify 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-11-21, 74 NRC 115 (2011); LBP-11-29, 74 NRC 612 (2011)
each organization member seeking representation must qualify for standing in his or her own right, the interests that the representative organization seeks to protect must be germane to its own purpose, and neither the asserted claim nor the requested relief must require an individual member to participate in the organization's legal action; LBP-11-29, 74 NRC 612 (2011)

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a state's regulations are not inherently unfair because they may be designed to effectuate a state-desired regulatory outcome; CLI-11-12, 74 NRC 460 (2011)
EPA also has granted authority to some states to implement, maintain, and enforce their own EPA-compliant air quality programs through State Ambient Air Quality Standards; LBP-11-26, 74 NRC 499 (2011)

STATION BLACKOUT
petitioner proffers no new information on station blackout or mitigation measures, and the events therefore cannot form the basis for an assertion of timeliness of a motion to reopen; LBP-11-35, 74 NRC 701 (2011)

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contentions that amount to an attack on applicable statutory requirements or represent a challenge to the basic structure of the Commission's regulatory process must be rejected; LBP-11-29, 74 NRC 612 (2011)

relevant zone of interests in NRC proceedings are articulated in the Atomic Energy Act and the National Environmental Policy Act; LBP-11-29, 74 NRC 612 (2011)
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a court cannot defer to interpretive proposals offered by counsel at oral argument and affirm on the basis of that reading when the statute does not plainly compel the reading being proposed; CLI-11-12, 74 NRC 460 (2011)
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applying the rule that the mention of one thing implies the exclusion of another, the fact that the regulation sets forth three specific circumstances in which a board's jurisdiction ends implies that jurisdiction does not end in other circumstances not listed; LBP-11-22, 74 NRC 259 (2011)
Atomic Energy Act § 189a has been interpreted to require that the hearing must encompass all material factors bearing on the licensing decision raised by the requester; LBP-11-22, 74 NRC 259 (2011)
Atomic Energy Act § 274d is construed as providing specific conditions under which NRC shall exercise the general legal authority granted to it under AEA § 274b; CLI-11-12, 74 NRC 460 (2011)
"shall" is a term of legal significance in that it is mandatory or imperative, not merely precatory; CLI-11-12, 74 NRC 460 (2011)
the mandatory language used in Atomic Energy Act § 274d is construed as requiring NRC to enter into an agreement for state regulation of the particular categories of nuclear materials that a state certifies it both desires to regulate and has established a program for, provided NRC finds the state's program to be adequate and compatible; CLI-11-12, 74 NRC 460 (2011)
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the Commission may consider requests to suspend or hold proceedings in abeyance pursuant to its inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 141 (2011)
the sole provision of NRC's procedural rules explicitly authorizing stay applications is available only to parties to adjudicatory proceedings seeking stays of decisions or actions of a presiding officer pending the filing and resolution of a petition for review; CLI-11-5, 74 NRC 141 (2011)
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SUBPART L PROCEEDINGS
the board is to apply the standards of Subpart G when ruling on motions for summary disposition; LBP-11-17, 74 NRC 11 (2011); LBP-11-31, 74 NRC 643 (2011)
the evidentiary record is opened upon the filing of the first initial written statements of position and written testimony with supporting affidavits on the admitted contentions; LBP-11-22, 74 NRC 259 (2011)
the standard for deciding motions for summary disposition closely parallels the standard used by the federal courts in deciding motions for summary judgment; LBP-11-31, 74 NRC 643 (2011)
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denial of summary disposition does not constitute a full or partial initial decision warranting immediate Commission review; CLI-11-10, 74 NRC 251 (2011)
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grant of summary disposition on a particular contention is an interlocutory ruling appealable at the end of the case; CLI-11-6, 74 NRC 203 (2011)

grant of summary disposition where other contentions are pending is not a final decision, and is appealable only upon a showing that the standards for interlocutory review have been met; CLI-11-14, 74 NRC 801 (2011)
if reasonable minds could differ as to the import of the evidence, summary disposition is not appropriate; LBP-11-20, 74 NRC 65 (2011)
in a proceeding governed by Subpart L, the board is to apply the standards of Subpart G when ruling on motions for summary disposition; LBP-11-17, 74 NRC 11 (2011)
motion for summary disposition is granted because there is no genuine issue or dispute as to any material fact and applicant's low-level radioactive waste plan satisfies the requirements of 10 C.F.R. 52.79(a); LBP-11-31, 74 NRC 643 (2011)
motions may be granted in a proceeding governed by Subpart G if filings in the proceeding, depositions, answers to interrogatories, and admissions on file, together with statements of the parties and affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a decision as a matter of law; LBP-11-17, 74 NRC 11 (2011)
motions will be granted if there is no genuine issue as to any material fact and the moving party is entitled to a decision as a matter of law; LBP-11-31, 74 NRC 643 (2011)
the board's denial of a summary disposition motion did not constitute a de facto partial initial decision or a final decision on the merits ripe for Commission review; CLI-11-6, 74 NRC 203 (2011)
the correct inquiry with regard to the first criterion for summary disposition is whether there are material factual issues that properly can be resolved only by a finder of fact because they may reasonably be resolved in favor of either party; LBP-11-31, 74 NRC 643 (2011)
the standard for a motion to reopen is measured using the Commission's test of whether it has been shown that a motion for summary disposition could be defeated; CLI-11-8, 74 NRC 214 (2011); LBP-11-23, 74 NRC 287 (2011); LBP-11-35, 74 NRC 701 (2011)
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the standard for deciding motions for summary disposition in Subpart L proceedings is found in section 2.710; LBP-11-31, 74 NRC 643 (2011)
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a requirement to supplement environmental analysis every time any new information, such as recommended but not yet adopted regulatory reform, comes to light would render agency decisionmaking intractable, always awaiting updated information only to find the new information outdated by the time a decision is made; LBP-11-28, 74 NRC 604 (2011)
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alleged defects in applicant's environmental report may be mooted by the content of NRC's EIS or SEIS; LBP-11-28, 74 NRC 604 (2011)
an EIS must be supplemented when there is new and significant information that will paint a seriously different picture of the environmental landscape; LBP-11-35, 74 NRC 701 (2011)
before taking a proposed action, Staff must issue an SEIS if there are substantial changes in the proposed action that are relevant to environmental concerns or there are new and significant circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; LBP-11-39, 74 NRC 862 (2011)

if NRC Staff has not already considered site-specific severe accident mitigation alternatives for a facility, they must be considered as part of applicant's environmental report and ultimately as part of NRC Staff's SEIS in a power reactor license renewal proceeding; LBP-11-17, 74 NRC 11 (2011)
if recommendations of the NRC's Near-Term Task Force review of the Fukushima Dai-ichi accident constitute relevant new and significant information, then the draft SEIS must address them; LBP-11-28, 74 NRC 604 (2011)
in mandatory hearings, Commission discussion regarding alternative site review supplements the environmental impact statement; LBP-11-26, 74 NRC 499 (2011)
intervenor may propose new contentions based on the Fukushima accident, the SER, the new SEIS, or other sources of new and materially different information, provided that it does so promptly after the new information becomes available and that it successfully fulfills the general contention admissibility requirements; LBP-11-22, 74 NRC 259 (2011)
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NRC Staff has the option of preparing a supplement to a draft or final EIS when, in its opinion, preparation of a supplement will further the purposes of NEPA; CLI-11-5, 74 NRC 141 (2011)
NRC Staff must include new and significant information in the supplemental DEIS; LBP-11-34, 74 NRC 685 (2011)
NRC Staff must supplement the DEIS if there are substantial changes in the proposed action that are relevant to environmental concerns or there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; LBP-11-33, 74 NRC 675 (2011)
only where new information presents a seriously different picture of the environmental impact of the proposed project from what was previously envisioned is supplementation of an environmental impact statement required; CLI-11-5, 74 NRC 141 (2011); LBP-11-28, 74 NRC 604 (2011); LBP-11-32, 74 NRC 654 (2011); LBP-11-39, 74 NRC 862 (2011)
petitioners may amend their contentions or file new contentions if the supplemental DEIS differs significantly from the data or conclusions in applicant's documents; LBP-11-34, 74 NRC 685 (2011)
the final SEIS must demonstrate that NRC Staff has received sufficient information to take a hard look at severe accident mitigation alternatives; LBP-11-17, 74 NRC 11 (2011)
where an SEIS is being prepared, intervenor may submit proposed new contentions based on new information, including new information in the SER and Staff NEPA documents; LBP-11-22, 74 NRC 259 (2011)
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a rulemaking petitioner may request the Commission to suspend all or any part of any licensing proceeding to which the petitioner is a party pending disposition of the petition for rulemaking; CLI-11-5, 74 NRC 141 (2011)
although NRC rules require that motions be addressed to the presiding officer when a proceeding is pending, suspension motions are best addressed to the Commission; CLI-11-5, 74 NRC 141 (2011)
Commission responses to requests for suspension of reactor licensing reviews and associated adjudications in the wake of the Three Mile Island accident and 9/11 terrorist attacks are discussed; LBP-11-37, 74 NRC 774 (2011)
for pending license renewal applications, where the period of extended operation will not begin for at least a year, there is no imminent threat to public health and safety that requires suspension of licensing proceedings or decisions; LBP-11-35, 74 NRC 701 (2011)
for post-disaster suspension of proceedings, the Commission considers whether moving forward will jeopardize the public health and safety, continuing the review process will prove an obstacle to fair and efficient decisionmaking, and going forward will prevent appropriate implementation of any pertinent rule or policy changes that might emerge from its ongoing evaluation; CLI-11-5, 74 NRC 141 (2011); LBP-11-33, 74 NRC 675 (2011); LBP-11-34, 74 NRC 685 (2011)

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the Commission may consider requests to suspend or hold proceedings in abeyance pursuant to its inherent supervisory authority over agency proceedings; CLI-11-5, 74 NRC 141 (2011)
the sole provision of NRC's procedural rules explicitly authorizing stay applications is available only to parties to adjudicatory proceedings seeking stays of decisions or actions of a presiding officer pending the filing and resolution of a petition for review; CLI-11-5, 74 NRC 141 (2011)
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TERMINATION OF LICENSE
agreement state license termination regulations are not less protective than or incompatible with NRC's in making the terms of restricted release considerably more difficult than those for unrestricted release; CLI-11-12, 74 NRC 460 (2011)
dose limit for license termination is a constraint within the public dose limit of 25 mrem per year to members of the public; CLI-11-12, 74 NRC 460 (2011)
NRC explicitly expressed a preference for unrestricted release in adopting its license termination rule; CLI-11-12, 74 NRC 460 (2011)
terminating a license for restricted use relies on legally enforceable institutional controls to achieve the 25-mrem dose limit; CLI-11-12, 74 NRC 460 (2011)
terminating a license for unrestricted use allows no dependence on governmental monitoring of engineered barriers and land-use restrictions to achieve a maximum dose of 25 mrem per year to a member of the public; CLI-11-12, 74 NRC 460 (2011)
the ALARA principle has been incorporated into the restricted-use portion of the license termination rule to screen out sites that should be removing contamination to achieve unrestricted use; CLI-11-12, 74 NRC 460 (2011)
the ALARA principle, either as a general regulatory principle or as used in NRC's license termination rule, does not incorporate or call for any comparative analysis of doses from restricted and unrestricted release; CLI-11-12, 74 NRC 460 (2011)

the ALARA requirement in section 20.1101(b) applies to the dose criteria for license termination; CLI-11-12, 74 NRC 460 (2011)
unrestricted release and restricted release are both available as independent regulatory options that would provide adequate protection to the public health and safety if the applicable dose and other criteria are met; CLI-11-12, 74 NRC 460 (2011)
TERMINATION OF PROCEEDING
a licensing board's dismissal of all pending contentions on mootness grounds due to new information ordinarily would terminate the proceeding, but new contentions could be filed on new information before termination; LBP-11-22, 74 NRC 259 (2011)
a licensing board's termination of the contested portion of a proceeding after granting summary disposition on the only pending contentions was not compelled by either precedent or regulation; LBP-11-22, 74 NRC 259 (2011)
adjudicatory proceedings terminate if intervenor either settles or abandons all of its contentions; LBP-11-22, 74 NRC 259 (2011)
boards may continue the adjudicatory proceeding until the deadlines for filing proposed new contentions have expired and the board has resolved all admitted and proposed contentions filed within the deadlines; LBP-11-22, 74 NRC 259 (2011)
terminating an adjudication has significant implications for the rights of intervenors under Atomic Energy Act § 189a; LBP-11-22, 74 NRC 259 (2011)
with the board's termination of the proceeding, the board's interlocutory rulings on contention admissibility became ripe for appeal; CLI-11-9, 74 NRC 233 (2011)
TERRORISM
any changes in NRC rules post-9/11 that might bear on license renewal reviews could be addressed via late-filed contentions; CLI-11-5, 74 NRC 141 (2011)
applicants should rely on the generic environmental impact statement for terrorism-related issues in a license renewal application; CLI-11-11, 74 NRC 427 (2011)
as an alternative ground for excluding a NEPA terrorism contention, NRC Staff's determination in the generic environmental impact statement that the environmental impacts of a terrorist attack were bounded by those resulting from internally initiated events is sufficient to address the environmental impacts of terrorism; CLI-11-11, 74 NRC 427 (2011)
based on his education and experience, intervenors' witness was found qualified to testify but not specifically on issues related to nuclear engineering, such as events at the Fukushima Dai-ichi plant, core damage frequency calculations, and effectiveness of SAMDAs; LBP-11-38, 74 NRC 817 (2011)
Commission responses to requests for suspension of reactor licensing reviews and associated adjudications in the wake of the Three Mile Island accident and 9/11 terrorist attacks are discussed; LBP-11-37, 74 NRC 774 (2011)
NEPA does not require NRC to consider the environmental consequences of hypothetical terrorist attacks on NRC-licensed facilities; CLI-11-11, 74 NRC 427 (2011)
petition for suspension of proceeding following 9/11 attack was denied because even if the licensing, construction, and shipping processes went forward as planned, no radiological materials would be present onsite for at least 2 years, so there was no immediate threat to public safety; CLI-11-5, 74 NRC 141 (2011)
post-9/11 abeyance of a proceeding was denied where the proceeding was at an early stage, there was no risk of immediate threat to public health and safety, there were non-terrorism-related contentions to be considered, and the only harm to petitioner would be inevitable litigation costs; CLI-11-5, 74 NRC 141 (2011)
post-9/11 suspension was neither necessary nor appropriate where shipments of spent fuel to the facility were at least 2 years down the road; CLI-11-5, 74 NRC 141 (2011)
protecting against the threat of air attacks is not within licensees' responsibilities because a private security force cannot reasonably be expected to defend against such attacks and adequate protection is ensured through the actions of other federal agencies with defense capabilities and air-safety expertise; CLI-11-4, 74 NRC 1 (2011)
the board applied the late-filing standards to a post-9/11 contention related to the risk of a terrorist attack on the ISFSI and found the contention timely but denied admission of both the safety and environmental aspects; CLI-11-5, 74 NRC 141 (2011)

within the geographic boundary of the Ninth Circuit, NRC may not exclude NEPA terrorism contentions categorically; CLI-11-11, 74 NRC 427 (2011)
THREE MILE ISLAND ACCIDENT
Commission responses to requests for suspension of reactor licensing reviews and associated adjudications in the wake of the TMI accident and 9/11 terrorist attacks are discussed; LBP-11-37, 74 NRC 774 (2011)
the Commission temporarily suspended the immediate effectiveness rule following the TMI accident; CLI-11-5, 74 NRC 141 (2011)
where the time for filing contentions had expired in a given case, no new TMI-related contentions would be accepted absent a showing of good cause and a balancing of the late-filing factors; CLI-11-5, 74 NRC 141 (2011)
TIME LIMITED AGING ANALYSES
operating license renewal applicants must reassess time-limited aging analyses made during the original license term and based upon the length of the original license term; LBP-11-21, 74 NRC 115 (2011)
to evaluate an operating license renewal application, the NRC reviews the management of aging effects and time-limited aging analysis of particular safety-related functions of the plant's systems, structures, and components pursuant to 10 C.F.R. Part 54 and the environmental impacts and alternatives to the proposed action in accordance with Part 51; LBP-11-17, 74 NRC 11 (2011)
TOTAL EFFECTIVE DOSE EQUIVALENT
dose limit for individual members of the public from a licensed activity is 100 millirem per year; CLI-11-12, 74 NRC 460 (2011)
TRANSPORTATION OF SPENT FUEL
post-9/11 suspension was neither necessary nor appropriate where shipments of spent fuel to the facility were at least 2 years down the road; CLI-11-5, 74 NRC 141 (2011)
UNCONTESTED LICENSE APPLICATIONS
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of the NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 499 (2011)
boards may entertain oral and written limited appearance statements from members of the public in connection with a mandatory uncontested proceeding; LBP-11-26, 74 NRC 499 (2011)
for the mandatory uncontested proceeding on a uranium enrichment facility license, a licensing board is to conduct a simple sufficiency review rather than a de novo review on both safety and environmental issues; LBP-11-26, 74 NRC 499 (2011)
in a mandatory hearing, a licensing board must narrow its inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance; LBP-11-26, 74 NRC 499 (2011)
in an operating license proceeding, the Commission would informally review the Staff recommendations, and the license would issue only after Commission action; CLI-11-5, 74 NRC 141 (2011)
NRC needs to conduct only a single licensing action and adjudicatory proceeding to authorize construction and operation and a mandatory hearing regarding the application and the Staff's associated safety and environmental reviews, despite the absence of a petitioner challenging applicant's request; LBP-11-26, 74 NRC 499 (2011)
NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient; LBP-11-26, 74 NRC 499 (2011)
UNRESTRICTED RELEASE
agreement state license termination regulations are not less protective than or incompatible with NRC's in making the terms of restricted release considerably more difficult than those for unrestricted release; CLI-11-12, 74 NRC 460 (2011)
NRC explicitly expressed a preference for unrestricted release in adopting its license termination rule; CLI-11-12, 74 NRC 460 (2011)
NRC regulations neither explicitly nor implicitly require a comparison of the levels of protection afforded by the unrestricted and restricted decommissioning options; CLI-11-12, 74 NRC 460 (2011)

terminating a license for unrestricted use allows no dependence on governmental monitoring of engineered barriers and land-use restrictions to achieve a maximum dose of 25 mrem per year to a member of the public; CLI-11-12, 74 NRC 460 (2011)
the ALARA principle has been incorporated into the restricted-use portion of the license termination rule to screen out sites that should be removing contamination to achieve unrestricted use; CLI-11-12, 74 NRC 460 (2011)
the ALARA principle, either as a general regulatory principle or as used in NRC's license termination rule, does not incorporate or call for any comparative analysis of doses from restricted and unrestricted release; CLI-11-12, 74 NRC 460 (2011)
unrestricted release and restricted release are both available as independent regulatory options that would provide adequate protection to the public health and safety if the applicable dose and other criteria are met; CLI-11-12, 74 NRC 460 (2011)
URANIUM ENRICHMENT FACILITIES
a factor bolstering the need for a uranium enrichment facility is the recognized margin level that exists in the existing enrichment market to offset potential supply problems as well as maintain a level of reasonable market competition; LBP-11-26, 74 NRC 499 (2011)
applicant and Staff treatment of need for the construction and operation of uranium enrichment facilities should explain why the proposed action is needed, describe the underlying need for the proposed action, but should not be written merely as a justification of the proposed action or to alter the choice of alternatives; LBP-11-26, 74 NRC 499 (2011)
applicant seeking a specific license for a uranium enrichment facility is required to submit a decommissioning funding plan consistent with 10 C.F.R. 70.25(e); CLI-11-4, 74 NRC 1 (2011)
applicant's commitment to use a letter of credit issued by a financial institution whose operations are regulated and examined by a federal or state agency complies with the regulatory requirements for decommissioning financial assurance; LBP-11-26, 74 NRC 499 (2011)
applicant's radiological measurements and monitoring program is subject to scrutiny; LBP-11-26, 74 NRC 499 (2011)
as part of its NEPA analysis, NRC must provide information that addresses the purpose and need for the proposed action; LBP-11-26, 74 NRC 499 (2011)
deferral of execution of the financial instruments for decommissioning funding until after the license has issued is not allowed; CLI-11-4, 74 NRC 1 (2011)
each decommissioning funding plan must include a signed original of the instrument obtained to provide financial assurance for decommissioning at the time the plan is submitted; CLI-11-4, 74 NRC 1 (2011)
ensuring continued availability of diverse, reliable sources of domestic enrichment services to provide low-enriched uranium for domestic power reactors supports a finding of need for the facility; LBP-11-26, 74 NRC 499 (2011)
evidence of significant actual utility commitments provides a compelling showing in support of the need for uranium enrichment facility; LBP-11-26, 74 NRC 499 (2011)
examples of need for the proposed facility include a benefit provided if the proposed action is granted or descriptions of the detriment that will be experienced without approval of the proposed action; LBP-11-26, 74 NRC 499 (2011)
for a proposed nuclear materials-related activity, commencement of construction relative to that activity prior to a favorable Staff conclusion regarding the NEPA cost-benefit balance is grounds for denial of the authorization to conduct that activity; LBP-11-26, 74 NRC 499 (2011)
fugitive dust generation from preconstruction activities is discussed; LBP-11-26, 74 NRC 499 (2011)
in mandatory hearings, Commission discussion regarding alternative site review supplements the environmental impact statement; LBP-11-26, 74 NRC 499 (2011)
minimum detectable concentrations for gaseous effluent and evaporator condensate must be 5% or less of the concentrations listed in Part 20, App. B, tbl. 2; LBP-11-26, 74 NRC 499 (2011)
NRC has clear statutory authority to regulate the construction and operation of a uranium enrichment facility; LBP-11-26, 74 NRC 499 (2011)
NRC Staff authorization permitting applicant to defer execution of any final letters of credit for decommissioning financial assurance until after a license is issued but before receipt of licensed material might be problematic; LBP-11-26, 74 NRC 499 (2011)

Part 70 applicants are required to establish a radiological monitoring program to monitor and report the release of radiological gaseous and liquid effluents to the environment; LBP-11-26, 74 NRC 499 (2011)
Part 70 establishes the basic regulatory framework that governs the licensing of an enrichment facility; LBP-11-26, 74 NRC 499 (2011)
previously recognized availability policy for domestic enrichment services supports a NEPA finding of a need for the construction and operation of uranium enrichment facilities; LBP-11-26, 74 NRC 499 (2011)
seismic avoidance areas are discussed; LBP-11-26, 74 NRC 499 (2011)
the construction inspection program is discussed; LBP-11-26, 74 NRC 499 (2011)
the Environmental Protection Agency possesses authority to set numerical standards for air pollutants from emission sources; LBP-11-26, 74 NRC 499 (2011)
the Fukushima accident does not provide a seriously different picture of the environmental impact of a proposed uranium enrichment facility from what was previously envisioned; LBP-11-26, 74 NRC 499 (2011)
there is no agency requirement that applicant submit a redress plan relative to preconstruction activities or, absent state or local requirements, take any remediation action regarding preconstruction activities if it decides not to complete the project or is denied agency authorization to construct and operate the facility; LBP-11-26, 74 NRC 499 (2011)
visual impact of operation of a facility on the quality of recreational experience is discussed; LBP-11-26, 74 NRC 499 (2011)
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URANIUM ENRICHMENT FACILITY PROCEEDINGS
boards are to make independent environmental judgments with respect to certain NEPA findings, though even then they need not rethink or redo every aspect of the NRC Staff's environmental findings or undertake their own fact-finding activities; LBP-11-26, 74 NRC 499 (2011)
for the mandatory uncontested proceeding on a uranium enrichment facility license, a licensing board is to conduct a simple sufficiency review rather than a de novo review on both safety and environmental issues; LBP-11-26, 74 NRC 499 (2011)
in a mandatory hearing, a licensing board must narrow its inquiry to those topics or sections in Staff documents that it deems most important and should concentrate on portions of the documents that do not on their face adequately explain the logic, underlying facts, and applicable regulations and guidance; LBP-11-26, 74 NRC 499 (2011)
NRC needs to conduct only a single licensing action and adjudicatory proceeding to authorize construction and operation and a mandatory hearing regarding the application and the Staff's associated safety and environmental reviews, despite the absence of a petitioner challenging applicant's request; LBP-11-26, 74 NRC 499 (2011)
NRC Staff's underlying technical and factual findings are not open to board reconsideration unless, after a review of the record, the board finds the NRC Staff review inadequate or its findings insufficient; LBP-11-26, 74 NRC 499 (2011)

URANIUM FUEL CYCLE
for power reactors, NRC Staff review should encompass emissions from the uranium fuel cycle as well as from construction and operation of the facility to be licensed; LBP-11-26, 74 NRC 499 (2011)

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assertions of a need to implement filtered vented containment are outside the scope of license renewal proceedings; LBP-11-35, 74 NRC 701 (2011)

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absent a waiver or exception from the presiding officer, no NRC rule or regulation, or provision thereof, concerning licensing of production and utilization facilities is subject to attack by way of discovery, proof, argument, or other means in any adjudicatory proceeding; LBP-11-35, 74 NRC 701 (2011)
absent a waiver, contentions challenging applicable statutory requirements or NRC regulations are not admissible; LBP-11-21, 74 NRC 115 (2011)
absent demonstration that petitioner's alleged special circumstances are unique to the facility rather than common to a large class of facilities, the request for waiver of regulations excluding spent fuel pool issues from license renewal proceedings is denied; LBP-11-35, 74 NRC 701 (2011)
board admitted a contention on a conditional basis, pending Commission ruling on merits of petition for waiver of NRC regulations; CLI-11-11, 74 NRC 427 (2011)
NRC has endorsed a four-pronged test for grant of a rule waiver, all factors of which must be met; LBP-11-35, 74 NRC 701 (2011)
parties to adjudicatory proceedings may petition for a waiver of a specified Commission rule or regulation or any provision thereof; CLI-11-11, 74 NRC 427 (2011)
presiding officers must dismiss any petition for waiver that does not make a prima facie showing of special circumstances with respect to the subject matter of the particular proceeding; LBP-11-35, 74 NRC 701 (2011)
the sole ground for petition of waiver or exception is that special circumstances with respect to the subject matter of the particular proceeding are such that the application of the rule or regulation or a provision of it would not serve the purposes for which it] was adopted; CLI-11-11, 74 NRC 427 (2011); LBP-11-35, 74 NRC 701 (2011)
the "uniqueness" factor of the rule waiver test is discussed; LBP-11-35, 74 NRC 701 (2011)
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to the extent that petitioner challenges the generic environmental impact statement, its remedy is a petition for rulemaking or a petition for a waiver of the rules based on circumstances; CLI-11-11, 74 NRC 427 (2011)
to waive the generic assessment in NRC regulations to permit adjudication of issues involving the environmental impact of spent fuel pool accidents in a license renewal proceeding, the Commission must conclude that the rule's strict application would not serve the purpose for which it was adopted; CLI-11-11, 74 NRC 427 (2011)
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licensing boards may not raise issues sua sponte when the sole intervenor has withdrawn from the proceeding; LBP-11-22, 74 NRC 259 (2011)
WITNESSES, EXPERT
based on his education and experience, intervenors' witness was found qualified to testify but not specifically on issues related to nuclear engineering, such as events at the Fukushima Dai-ichi plant, core damage frequency calculations, and effectiveness of SAMDAs; LBP-11-38, 74 NRC 817 (2011)
experts must have the requisite education, training, skill, or experience in operation of a nuclear power plant or in probabilistic risk assessment to support a contention; LBP-11-35, 74 NRC 701 (2011)
petitioner's assertion that recriticality is demonstrated by the relative quantities of radionuclides released is not self-evident and is clearly of the class of statements that must be supported by expert opinion; LBP-11-23, 74 NRC 287 (2011)
speculation by an expert cannot form the basis for admission of a contention on the basis of the matter being exceptionally grave; LBP-11-20, 74 NRC 65 (2011)
supporting affidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; LBP-11-35, 74 NRC 701 (2011)
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