NUCLEAR REGULATORY COMMISSION ISSUANCES

OPINIONS AND DECISIONS OF THE NUCLEAR REGULATORY COMMISSION WITH SELECTED ORDERS

January 1, 2017 – June 30, 2017

Volume 85
Pages 1 - 247

Prepared by the
Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
(301-415-0955)

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PREFACE

This is the eighty-fifth volume of issuances (1–247) of the Nuclear Regulatory Commission and its Atomic Safety and Licensing Boards, Administrative Law Judges, and Office Directors. It covers the period from January 1, 2017, to June 30, 2017.

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

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

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

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

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

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

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

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Stephen G. Burns, Chairman
Kristine L. Svinicki
Jeff Baran

In the Matter of	**Docket Nos. 52-040-COL** **52-041-COL**
FLORIDA POWER & LIGHT COMPANY **(Turkey Point Nuclear Generating Units 6 and 7)**	**January 4, 2017**

MEMORANDUM AND ORDER

Florida Power & Light Company (FPL) has applied for combined licenses to construct and operate two additional units at the Turkey Point site in Miami-Dade County, Florida.[1] On December 13, 2016, we issued a notice of hearing for an evidentiary session to receive testimony and exhibits in the uncontested, or mandatory, portion of this proceeding on FPL's application.[2] This mandatory hearing will address whether the NRC Staff's review of the application has been adequate to support the findings in 10 C.F.R. §§ 52.97 and 51.107 that must

[1] Florida Power & Light Company; Acceptance for Docketing of an Application for Combined License for Turkey Point Units 6 & 7 Nuclear Power Plants, 74 Fed. Reg. 51,621 (Oct. 7, 2009).

[2] Florida Power and Light Company; Turkey Point, Units 6 and 7; Combined License Application; Hearing, 81 Fed. Reg. 89,995 (Dec. 13, 2016).

be made for each combined license.[3] The notice of hearing set the mandatory hearing for February 9, 2017.[4]

In support of the mandatory hearing, the Staff has submitted its information paper, which serves as the Staff's primary pre-filed testimony.[5] In this paper, the Staff stated that its required consultations pursuant to section 7 of the Endangered Species Act with the U.S. Fish and Wildlife Service (FWS) and with the National Marine Fisheries Service (NMFS) have not yet concluded.[6] In view of those ongoing consultations, we have decided to postpone the mandatory hearing until such time as the Staff completes its consultations with FWS and NMFS and we have in hand the results of these consultations. To that end, we direct the Staff to inform us within ten days of the date of this order of its best estimate of the time frame for concluding consultations, including the issuance of any biological opinions. Based on the Staff's estimate, we will reset the hearing date and publish a revised notice of hearing in the *Federal Register* in the near term.

We likewise direct the Staff to promptly notify us once consultations are concluded. And finally, the Staff should supplement its information paper within fourteen days after the conclusion of consultations. We expect that the supplement will address any material developments resulting from the consultations, such as any measures recommended by FWS and/or NMFS for the protection of listed species and any conditions that the Staff recommends be included in the combined licenses, if issued.

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 4th day of January 2017.

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[3] This mandatory hearing is separate and distinct from the ongoing contested hearing in this matter. *Id.* at 89,997.

[4] *Id.* at 89,996.

[5] "Staff Statement in Support of the Uncontested Hearing for Issuance of Combined Licenses for Turkey Point Units 6 and 7 (Docket Nos. 52-040 and 52-041)," Commission Paper SECY-16-0136 (Dec. 2, 2016) (ML16237A433).

[6] *Id.* at 5-6, 26; *see* Endangered Species Act § 7(a)(2), 16 U.S.C. § 1536(a)(2).

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Ronald M. Spritzer, Chairman
Dr. Gary S. Arnold
Dr. Sue H. Abreu

In the Matter of **Docket No. 50-341-LR**
(ASLBP No. 16-951-01-LR-BD01)

DTE ELECTRIC COMPANY
(Fermi Nuclear Power Plant,
Unit 2) **January 10, 2017**

On November 21, 2016, Citizens' Resistance at Fermi 2 (CRAFT) filed a motion to reopen the record and leave to file a new contention. Because the Board determined that CRAFT failed to satisfy the Commission's stringent requirements for reopening a closed record, it denied the motion.

RULES OF PRACTICE: REOPENING A CLOSED RECORD

Section 2.326(a) of 10 C.F.R. requires that a motion to reopen a closed record must: (1) be timely; (2) address a significant safety or environmental issue; and (3) demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.

RULES OF PRACTICE: REOPENING A CLOSED RECORD

Section 2.326(b) of 10 C.F.R. requires that a motion to reopen a closed record must be supported by an affidavit that sets forth the "factual and/or technical

bases for the movant's claim that the criteria of paragraph (a) of this section have been satisfied."

RULES OF PRACTICE: REOPENING A CLOSED RECORD; CONTENTIONS, NEW OR AMENDED

Section 2.326(d) of 10 C.F.R. requires that a motion to reopen a closed record that relates to a contention not previously in controversy among the parties must satisfy section 2.309(c)'s requirements for new or amended contentions filed after the deadline in section 2.309(b), and will not be accepted absent "good cause."

RULES OF PRACTICE: CONTENTIONS, NEW OR AMENDED; GOOD CAUSE

"Good cause" is demonstrated by showing that: "(i) [t]he information upon which the filing is based was not previously available; (ii) [t]he information upon which the filing is based is materially different from information previously available; and (iii) [t]he filing has been submitted in a timely fashion based on the availability of the subsequent information." 10 C.F.R. § 2.309(c)(1)(i)-(iii).

RULES OF PRACTICE: CONTENTIONS, NEW OR AMENDED; TIMELINESS

New or amended contentions based on new information are generally considered timely if filed within 30 days of the new information's availability.

RULES OF PRACTICE: CONTENTIONS, NEW OR AMENDED; CONTENTION ADMISSIBILITY

Newly filed contentions must satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f).

RULES OF PRACTICE: CONTENTIONS, NEW OR AMENDED; STANDING

Once a party or participant in a proceeding has satisfied the requirements for standing pursuant to 10 C.F.R. § 2.309(d), it is not required to reestablish standing in order to file a new or amended contention.

RULES OF PRACTICE: REOPENING A CLOSED RECORD

When a petitioner asserts that its newly proffered information would have rendered a materially different result in a case involving a SAMA analysis, the petitioner must establish that the newly proffered information would likely have materially changed the cost-benefit conclusions of the SAMA candidates evaluated.

RULES OF PRACTICE: SCOPE OF REVIEW

In general, a reply cannot expand the scope of arguments set forth in the original pleading. Replies must focus on the legal or factual arguments first presented in the original petition or raised in the answers to it.

MEMORANDUM AND ORDER
(Ruling on Motion to Reopen the Record and File a New Contention)

Before the Licensing Board is a motion to reopen the record and for leave to file a new contention (Motion to Reopen) filed by Citizens' Resistance at Fermi 2 (CRAFT).[1] Because CRAFT has failed to satisfy the Commission's stringent requirements for reopening a closed record, we deny the Motion to Reopen.

I. BACKGROUND

This proceeding concerns the April 24, 2014 application of the DTE Electric Company (DTE) to renew its operating license for the Fermi Nuclear Power Plant, Unit 2 (Fermi 2) for an additional 20 years from the current expiration date of March 20, 2025.[2] The background of the license renewal proceeding is set forth in more detail in an earlier licensing board order[3] and an order of the Commission.[4]

In the initial license renewal adjudication, CRAFT proposed fourteen con-

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[1] Corrected November 21, 2016 Filing: CRAFT's Consolidated Motion to Reopen the Record of License Renewal Proceeding and to File a New Contention for Fermi Unit 2 Nuclear Power Plant (Nov. 25, 2016) [hereinafter Motion to Reopen].

[2] Letter from J. Todd Conner, Site Vice President, to Document Control Desk, NRC (Apr. 24, 2014) (ADAMS Accession No. ML14121A532).

[3] *See* LBP-15-5, 81 NRC 249, 254-55, *rev'd,* CLI-15-18, 82 NRC 135 (2015).

[4] *See* CLI-15-18, 82 NRC 135, 136-37 (2015).

tentions.[5] The licensing board concluded that CRAFT established representational standing[6] and admitted two of CRAFT's contentions.[7] On appeal, the Commission reversed the licensing board's contention admissibility decision and directed the board to terminate the adjudicatory proceeding,[8] which the board did on September 11, 2015.[9]

CRAFT filed a motion to reopen the record and request to admit a new contention on November 21, 2016.[10] It seeks to reopen the record to admit evidence it recently obtained concerning the distribution of potassium iodide (KI) tablets in the Fermi 2 Emergency Planning Zone (EPZ), which CRAFT argues shows that actual KI tablet distribution in the EPZ is lower than DTE assumed in its severe accident mitigation alternatives (SAMA) analysis.[11] CRAFT seeks to admit a new contention because "the KI distribution program is factored and accounted for within [DTE]'s Fermi 2 SAMA analysis and . . . the data input assumes KI coverage is widespread and very effective within the 10-mile Fermi EPZ."[12] CRAFT contends that DTE's "SAMA analysis errs by significantly underestimating the economic costs and consequences of a severe accident."[13]

The NRC's Acting Secretary referred CRAFT's Motion to Reopen to the Atomic Safety and Licensing Board Panel[14] and this Board was established to preside over the adjudicatory proceeding on December 7, 2016.[15]

The NRC Staff and DTE filed answers opposing CRAFT's Motion to Reopen.[16] CRAFT filed a reply to the NRC Staff's and DTE's answers.[17]

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[5] LBP-15-5, 81 NRC at 255.

[6] *Id.* at 256-57. Because CRAFT has already established its standing we do not address that issue. *See infra* notes 27-29 and accompanying text.

[7] LBP-15-5, 81 NRC at 309.

[8] CLI-15-18, 82 NRC at 150.

[9] LBP-15-25, 82 NRC 161, 161 (2015).

[10] CRAFT's Consolidated Motion to Reopen the Record of License Renewal Proceeding and to File a New Contention for Fermi Unit 2 Nuclear Power Plant (Nov. 21, 2016). CRAFT submitted a corrected version of its November 21, 2016 motion on November 25, 2016. *See supra* note 1 and accompanying text.

[11] Motion to Reopen at 7.

[12] *Id.* at 10.

[13] *Id.* at 8.

[14] Acting Secretary of the Commission Order (Dec. 6, 2016) at 1 (unpublished).

[15] Establishment of Atomic Safety and Licensing Board (Dec. 7, 2016) (unpublished); *see also* 81 Fed. Reg. 90,388 (Dec. 14, 2016).

[16] NRC Staff Answer to CRAFT's Motion to Reopen the Record and Petition to Intervene (Dec. 1, 2016) [hereinafter NRC Staff Answer]; DTE Electric Company Answer Opposing CRAFT Motion to Reopen and Proposed New Contention (Dec. 1, 2016) [hereinafter DTE Answer].

[17] CRAFT Combined Reply to DTE and NRC Staff Answers to CRAFT Consolidated Motions and Proposed New Contention (Dec. 8, 2016) [hereinafter Reply].

II. LEGAL STANDARDS

The legal standards for license renewal and SAMA analysis are set forth in an earlier licensing board order,[18] and therefore need not be repeated here.

The requirements to reopen a closed adjudicatory proceeding are set forth in 10 C.F.R. § 2.326. Pursuant to section 2.326(a), a motion to reopen must (1) be timely;[19] (2) address a significant safety or environmental issue; and (3) demonstrate that a materially different result would be or would have been likely had the newly proffered evidence been considered initially.[20] Pursuant to section 2.326(b), a motion to reopen must also 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."[21] Among other things, such affidavits "must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised."[22] The Commission has stated that 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 10 C.F.R. § 2.326(a)-(b)] requirements.'"[23]

Pursuant to section 2.326(d), "[a] motion to reopen that relates to a contention not previously in controversy among the parties must also satisfy the § 2.309(c) requirements for new or amended contentions filed after the deadline in § 2.309(b)."[24] Under this standard, good cause must be demonstrated by showing that: "(i) [t]he information upon which the filing is based was not previously available; (ii) [t]he information upon which the filing is based is materially different from information previously available; and (iii) [t]he filing has

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[18] *See* LBP-15-5, 81 NRC at 259-61.

[19] A discretionary exception is available if the motion presents "an exceptionally grave issue." 10 C.F.R. § 2.326(a)(1).

[20] *Id.* § 2.326(a)(1)-(3).

[21] *Id.* § 2.326(b).

[22] *Id.*

[23] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 287 (2009) (quoting *Louisiana Power & Light Co.* (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1, 5 (1986) and *Public Service Co. of New Hampshire* (Seabrook Station, Units 1 and 2), CLI-90-10, 32 NRC 218, 221 (1990)). Reopening the record is an "extraordinary" action. *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 338 (2011) (citing Final Rule: "Criteria for Reopening Records in Formal Licensing Proceedings," 51 Fed. Reg. 19,535, 19,538 (May 30, 1986)). According to the Commission, if the burden were not deliberately heavy, "'there would be little hope' of completing administrative proceedings if each newly arising allegation required an agency to reopen its hearings." *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 350 n.18 (2005) (quoting *Vermont Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.,* 435 U.S. 519, 554-55 (1978)).

[24] 10 C.F.R. § 2.326(d).

been submitted in a timely fashion based on the availability of the subsequent information."[25] The Commission generally considers a contention based on new information to be timely if the contention is filed within 30 days of the new information's availability.[26]

A new contention filed by a party to or participant[27] in the proceeding must also satisfy the contention admissibility requirements of 10 C.F.R. § 2.309(f).[28] Because CRAFT previously satisfied the requirements for standing, it is not required to demonstrate standing again regarding its newly filed contention.[29]

III. DISCUSSION

The brunt of CRAFT's argument is that DTE's SAMA analysis is faulty for assuming that the distribution of KI tablets in the EPZ is widespread and effective, when in fact it is limited to only a small percentage of the population within the EPZ.[30] The NRC Staff and DTE responded by arguing that CRAFT's motion fails to satisfy all three of the criteria pursuant to 10 C.F.R. § 2.326(a), and is not supported with an affidavit, as required by 10 C.F.R. § 2.326(b).[31] The Board concludes, as detailed below, that the motion fails to satisfy the criterion of section 2.326(a)(3), i.e., the motion fails to demonstrate that a materially different result would have been likely had the proffered evidence been considered initially. Thus, there is no need for the Board to decide whether the motion satisfies the other two criteria of section 2.326(a). The Board also concludes that the Motion to Reopen fails to satisfy the requirement of section 2.326(b)

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[25] *Id.* § 2.309(c)(1)(i)-(iii).

[26] *See Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4), CLI-11-8, 74 NRC 214, 218 n.8 (2011). The first Fermi 2 Board provided that, in general, a proposed new, amended, or migrated contention would be timely under 10 C.F.R. § 2.309(c) if filed within 30 days of the date when the new and material information on which it is based first became available. Licensing Board Order (Initial Scheduling Order) (Feb. 27, 2015) at 3 (unpublished). With respect to new, amended, or migrated contentions based on new and material information in the NRC Staff's supplemental environmental impact statement (SEIS), final SEIS (FSEIS), and safety evaluation report (SER) with open items, and final SER, the Board's scheduling order provided that a proposed contention would be deemed timely under 10 C.F.R. § 2.309(c) if it is filed within 60 days of the date when the document containing the new and material information first becomes available. *Id.*

[27] Pursuant to 10 C.F.R. § 2.4, a "participant" is defined as "an individual or organization (including a governmental entity) that has petitioned to intervene in a proceeding or requested a hearing but that has not yet been granted party status by an Atomic Safety and Licensing Board or other presiding officer."

[28] 10 C.F.R. § 2.309(c)(4).

[29] *Id.*

[30] Motion to Reopen at 8, 10.

[31] *See generally* NRC Staff Answer at 8-17; DTE Answer at 3-8.

that the motion be supported by affidavit. For both these reasons, the Board denies the Motion to Reopen.[32]

A. Materially Different Result

In general, "[u]nless it looks genuinely plausible that inclusion of an additional factor or use of other assumptions and models may change the cost-benefit conclusions for the SAMA candidates evaluated, no purpose would be served to further refine the SAMA analysis."[33] Therefore, to satisfy section 2.326(a)(3), CRAFT must show that a materially different SAMA analysis would have been likely had its proffered new evidence been included in the analysis.

CRAFT's argument that the Fermi 2 SAMA analysis would be materially altered by its new evidence depends on its premise that the analysis assumed that KI tablet distribution in the EPZ is widespread and effective.[34] CRAFT states that recently "Michigan Department of Community Health personnel . . . indicated that actual distribution of KI to persons living in the [EPZ] although reported as 5.2% in 2012 is now estimated to be 10-15% based on substantiation of redeemed vouchers and telephone surveys."[35] Although the new estimate of actual KI tablet distribution is somewhat higher than the figure reported in 2012, CRAFT believes that even the 10-15% estimate may still be well below that assumed in the SAMA analysis. According to CRAFT, "[t]o the extent that [DTE]'s SAMA analysis relies on the input assumption that the KI distribution program is largely effective and adequately protective of public health, CRAFT contends that [DTE]'s SAMA analysis errs by significantly underestimating the

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[32] On or about December 15, 2016, after CRAFT filed its Motion to Reopen and this Board was established to rule on the Motion, the NRC Staff issued the renewed license for Fermi 2. *See* Letter from Lois M. James, Senior Project Manager, Division of License Renewal, Office of Nuclear Reactor Regulation, NRC, to Keith Polson, Site Vice President–Nuclear Generation, DTE Electric Company (Dec. 15, 2016) (ADAMS Accession No. ML16351A459). This raises the question whether the Motion to Reopen is rendered moot by the issuance of the license. In general, a case is dismissed as moot when effective relief cannot be granted because of subsequent events. *See Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-10, 37 NRC 192, 200 (1993). In this instance, although the renewed license has been issued, if the Board reopens the adjudication and rules in CRAFT's favor on the new contention, it could still grant effective relief by directing the Staff to correct the deficiency in the SAMA analysis. *See Powertech (USA), Inc.* (Dewey-Burdock *In Situ* Uranium Recovery Facility), CLI-16-20, 84 NRC 219 (2016). Therefore, the Motion to Reopen is not moot.

[33] *Nextera Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 323 (2012) (quoting *Entergy Nuclear Generation Co.* (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 317 (2010)).

[34] *See, e.g.,* Motion to Reopen at 8.

[35] *Id.*

economic costs and consequences of a severe accident."[36] CRAFT argues that if "more appropriate and realistic inputs pertaining to KI coverage in the Fermi EPZ" were used in the SAMA analysis, it "may change the cost-benefit conclusions for the SAMA candidates evaluated."[37]

The NRC Staff and DTE both counter that the premise of CRAFT's argument is flawed because, in fact, the SAMA analysis assumed no distribution of KI tablets in the EPZ.[38] That is, the SAMA analysis conservatively assumed that the KI tablet distribution program is completely ineffective. Thus, they argue, CRAFT is mistaken in claiming that the SAMA analysis would be materially different if the analysis had assumed a distribution of KI tablets in the EPZ of 10-15%.[39]

Documents from the relicensing proceeding confirm that the Fermi 2 SAMA analysis assumed a KI tablet distribution input of zero. The Fermi 2 Final Environmental Impact Statement (FSEIS),[40] the Draft Supplemental Environmental Impact Statement (DSEIS),[41] and Appendix E of DTE's License Renewal Application,[42] which contains the SAMA analysis itself, state that the analysis was based on several models, including a computer code, MELCOR Accident Consequence Code System (MACCS2), version 3.7.0. One of the assumptions used in running the MACCS2 model was that the population of the EPZ received no KI tablets.[43] CRAFT has not pointed to any documents or other source of relevant information to suggest otherwise.

Given that the SAMA analysis assumed that KI tablet distribution in the EPZ would be completely ineffective, the Board concludes that reopening the record to admit evidence that KI tablet distribution in the EPZ reaches only

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[36] *Id.*

[37] *Id.* at 9.

[38] NRC Staff's Answer at 13; DTE's Answer at 3-4.

[39] *See* NRC Staff's Answer at 13; DTE's Answer at 3-4.

[40] Office of Nuclear Reactor Regulation, Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 56, Regarding Fermi 2 Nuclear Power Plant, NUREG-1437 § 4.11.1.2 at 4-67 (Sept. 2016) (ADAMS Accession No. ML16259A103).

[41] Office of Nuclear Reactor Regulation, General Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 56, Regarding Fermi 2 Nuclear Power Plant, Draft Report for Comment, NUREG-1437 § 4.11.1.2 at 4-67 (Oct. 2015) (ADAMS Accession No. ML15300A064).

[42] Application for 2025 License Renewal Facility Operating License for DTE Electric Company, Fermi 2, app. E, at D-95 (Apr. 24, 2014) (ADAMS Accession No. ML14121A540).

[43] DTE Answer, attach. 1, Excerpt from User's Guide and Reference Manual for WinMACCS Version 3.7.0, at 103 (explaining that the parameter KIMODL determines whether consequence calculations consider KI ingestion and that the value is set to KI if this is to be considered or NOKI if it is not to be considered); DTE Answer, attach. 2, ENERCON, Fermi 2 WinMACCS Assessment of Severe Accident Consequences, app. A, at 32 (Sept. 30, 2013) (KIMODL was set to NOKI for the Fermi 2 model).

10-15% of the population would not lead to materially different cost-benefit conclusions for the SAMA candidates. Therefore, CRAFT has failed to satisfy the requirement of 10 C.F.R. § 2.326(a)(3) because it fails to demonstrate that a materially different result would have been likely had the proffered evidence been considered initially.[44]

B. Affidavit

The Board further concludes that CRAFT has failed to meet its burden pursuant to 10 C.F.R. § 2.326(b) because it did not support its motion with an affidavit. CRAFT argues that it is not required to submit an affidavit because the basis for its motion is purely legal.[45] The basis for CRAFT's Motion to Reopen, however, is the newly proffered data relating to KI tablet distribution in the EPZ. Thus, the Motion is based on purportedly new factual information. Section 2.326(b) specifically requires an affidavit providing the factual and/or technical basis for the movant's claim that "the criteria of paragraph (a) of this section have been satisfied."[46] Given that CRAFT attached no affidavit addressing the criteria in section 2.326(a), the Board must deny its Motion to Reopen for this reason as well.

C. New Arguments in CRAFT's Reply

CRAFT changed its argument between its Motion to Reopen and its Reply. In the Motion to Reopen, CRAFT exclusively argued that DTE's SAMA analysis was faulty for assuming that KI tablet distribution was effective and widespread.[47] After DTE and the NRC Staff explained that the SAMA analysis assumed zero KI tablet distribution input, CRAFT argued in its Reply that the SAMA analysis was faulty for making that assumption.[48] The Board will not consider CRAFT's argument that the SAMA analysis was faulty for assuming

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[44] Although CRAFT framed its motion in terms of a request to reopen the record and admit a new contention concerning DTE's SAMA analysis, its true concern appears to be with DTE's Emergency Planning efforts. *See* Motion to Reopen at 8-10; Reply at 3. Under 10 C.F.R. § 50.47(b)(10), nuclear power reactors must have a range of protective actions planned in the case of plume exposure in the EPZ, including the prophylactic use of KI, as appropriate. However, a challenge to the adequacy of DTE's Emergency Planning efforts is outside the scope of a relicensing proceeding. *See* 10 C.F.R. § 50.47(a)(1)(i).

[45] Motion to Reopen at 4.

[46] 10 C.F.R. § 2.326(b).

[47] *See* Motion to Reopen at 8, 10.

[48] Reply at 3.

that there is no distribution of KI tablets in the EPZ because this argument was not presented in its original motion.[49]

In its Reply, CRAFT also claimed that it raised an environmental justice contention in its Motion to Reopen.[50] CRAFT argues that if the SAMA analysis reflected the actual KI tablet distribution in the EPZ, the SAMA analysis would highlight a disparity between KI tablet distribution in the United States' portion of the EPZ and the Canadian portion of the EPZ because Canada has a higher rate of KI tablet distribution due to a set of recently issued regulations.[51] However, CRAFT does not explain how this alleged disparity would change the SAMA analysis.[52] The Motion to Reopen did not set forth a separate environmental justice contention, but rather claimed that "CRAFT's new and material dispute with [DTE] extends to the environmental justice implications that a proper [Environmental Report] SAMA analysis would surely expose in a dramatic and undeniable fashion."[53] Thus, CRAFT's brief reference to environmental justice in its Motion to Reopen was solely as a potential implication of its proposed new contention concerning the adequacy of the SAMA analysis. Because CRAFT's environmental justice argument would not materially alter the SAMA analysis, it does not change our conclusion that the Motion to Reopen must be denied.

IV. CONCLUSION

CRAFT's Motion to Reopen is *denied.* This adjudicatory proceeding remains *terminated.* CRAFT may appeal this decision to the Commission, pursuant to 10 C.F.R. § 2.341, within twenty-five (25) days of service of this Memorandum and Order.

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[49] *Cf. Nuclear Management Co., LLC* (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006) ("It is well established in NRC proceedings that a reply cannot expand the scope of the arguments set forth in the original hearing request.").

[50] Reply at 7.

[51] *Id.* at 10.

[52] *See id.*; 10 C.F.R. § 2.326(a)(3).

[53] Motion to Reopen at 10.

It is so ORDERED.

THE ATOMIC SAFETY
AND LICENSING BOARD

Ronald M. Spritzer, Chairman
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

Dr. Sue H. Abreu
ADMINISTRATIVE JUDGE

Rockville, Maryland
January 10, 2017

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 Units 6 and 7)

January 13, 2017

Citizens Allied for Safe Energy, Inc. (CASE) petitioned to intervene in the proceeding involving Florida Power & Light Company's application for combined licenses for two new nuclear power reactors at the Turkey Point facility. CASE proffered four contentions challenging the NRC Staff's Final Environmental Impact Statement (FEIS). The Board denied CASE's petition, determining that CASE had standing, but that each of its contentions was either untimely, inadmissible, or both.

RULES OF PRACTICE: STANDING TO INTERVENE (SAME PROCEEDING)

Section 2.309(c)(4) states that "[i]f a party or *participant* has already satisfied the requirements for standing under paragraph (d) of this section in the same proceeding in which the new or amended contentions are filed, it does not need to do so again." 10 C.F.R. § 2.309(c)(4) (emphasis added). Section 2.4 defines

"participant" as "an individual or organization (including a governmental entity) that has petitioned to intervene in a proceeding or requested a hearing but that has not yet been granted party status by [the Board]." *Id.* § 2.4. A petitioner who seeks to intervene is thus a "participant" pursuant to section 2.4, and if that petitioner has previously satisfied standing requirements in the same proceeding, "it does not need to do so again." *Id.* § 2.309(c)(4).

RULES OF PRACTICE: STANDING TO INTERVENE (*PRO SE* LITIGANTS)

For purposes of standing analysis, *pro se* litigants are held to "less rigid pleading standards, so that parties with a clear — but imperfectly stated — interest in the proceedings are not excluded." *U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), CLI-10-20, 72 NRC 185, 192 (2010).

RULES OF PRACTICE: STANDING TO INTERVENE (REPRESENTATIONAL STANDING)

When an organization seeks to intervene on behalf of its members, it can establish representational standing by showing that (1) at least one member would otherwise have standing to sue in his or her own right; (2) the interests that the organization seeks to protect are germane to its purpose; and (3) neither the claim asserted nor the relief requested requires an individual member to participate in the organization's lawsuit. Additionally, the member must explicitly authorize the organization to represent his or her interests. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999).

RULES OF PRACTICE: STANDING TO INTERVENE (PROXIMITY PRESUMPTION)

The Commission recognizes a "proximity presumption" in certain proceedings, including COL applications, for petitioners living within 50 miles of the facility at issue, which effectively dispenses with the need to make an affirmative showing of injury, causation, and redressability. *See Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915-16 (2009).

RULES OF PRACTICE: CONTENTIONS (TIMELINESS)

When a COL application is docketed, a petitioner seeking to raise contentions under the National Environmental Policy Act (NEPA) must base them on the applicant's environmental report (ER), *see* 10 C.F.R. § 2.309(f)(2), and the deadline for filing the petition is typically 60 days after the notice of hearing and opportunity to intervene is published in the *Federal Register. See id.* § 2.309(b).

RULES OF PRACTICE: CONTENTIONS (TIMELINESS; GOOD CAUSE)

After the deadline for filing contentions based on the ER has passed, a petitioner seeking to file an environmental-related contention must show good cause for its belated filing by meeting the three-prong standard in 10 C.F.R. § 2.309(c)(1).

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

A petitioner must show that at least one of its newly proffered contentions satisfies the six-factor admissibility standard in section 2.309(f)(1). This standard is "strict by design," *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), and a licensing board must reject a contention that does not meet all six criteria. *See USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006).

RULES OF PRACTICE: CONTENTIONS (TIMELINESS; GOOD CAUSE)

A petitioner's failure to address whether "good cause" exists for belatedly filing a contention, as required by 10 C.F.R. § 2.309(c)(1), "constitutes sufficient grounds for rejecting its [petition]." *See Florida Power & Light Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Calvert Cliffs Independent Spent Fuel Storage Installation; Nine Mile Point Nuclear Station, Units 1 and 2; R.E. Ginna Nuclear Power Plant; Turkey Point Nuclear Generating Plant, Units 3 and 4; St. Lucie Nuclear Power Plant, Units 1 and 2; Seabrook Station; Duane Arnold Energy Center), CLI-06-21, 64 NRC 30, 34 (2006).

RULES OF PRACTICE: CONTENTIONS (*PRO SE* LITIGANTS)

Although *pro se* litigants are held to less rigid pleading standards, they "still are expected to comply with our procedural rules." *South Carolina Electric &*

Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 6 (2010).

MEMORANDUM AND ORDER
(Denying CASE's Petition to Intervene and Request for a Hearing)

Citizens Allied for Safe Energy, Inc. (CASE) petitions to intervene in this proceeding involving the application of Florida Power & Light Company (FPL) for combined licenses (COLs) for two new nuclear power reactors, Units 6 and 7, at the FPL Turkey Point facility near Homestead, Florida. *See* [CASE] Petition to Intervene and Request for Hearing in Opposition to the Final Report EIS Granting COLs for Turkey Point Units 6 & 7 (Nov. 28, 2016) [hereinafter CASE Petition]. CASE proffers four contentions challenging the adequacy of the NRC Staff's Final Environmental Impact Statement (FEIS).[1] For the reasons discussed below, we conclude that CASE has standing, but that each of its contentions is either untimely, inadmissible, or both. We therefore deny CASE's petition.

I. BACKGROUND

Although CASE is not currently a party to this proceeding, it has a lengthy history of involvement in the case since this Board's establishment in 2010. CASE first sought to intervene following the issuance of a June 2010 notice of hearing and opportunity to petition to intervene. *See* 75 Fed. Reg. 34,777 (June 18, 2010). The notice of hearing also prompted the filing of two other intervention petitions: (1) a joint petition from Southern Alliance for Clean Energy, the National Parks Conservation Association, Mark Oncavage, and Dan Kipnis (collectively, Joint Intervenors); and (2) a petition from the Village of Pinecrest, Florida. *See* LBP-11-6, 73 NRC 149, 164-65 (2011).

In February 2011, this Board granted two of the three petitions, admitting CASE's Contentions 6 and 7 and Joint Intervenors' Contention 2.1. *See* LBP-

[1] *See* Division of New Reactor Licensing, Office of New Reactors, Environmental Impact Statement for [COLs] for Turkey Point Nuclear Plant Units 6 and 7 Final Report, NUREG-2176 (Oct. 2016) (ADAMS Accession Nos. ML16300A104, ML16300A137, ML16301A018, and ML16300-A312) [hereinafter FEIS].

11-6, 73 NRC at 251-52.[2] In March 2012, after dismissing CASE's Contention 6 as moot[3] and granting FPL's motion for summary disposition of CASE's Contention 7,[4] we denied CASE's motions to admit two new contentions and dismissed CASE as a party to this proceeding. *See* LBP-12-7, 75 NRC 503, 520 (2012).

In July 2012, CASE again petitioned to intervene, seeking leave to file a new contention concerning temporary storage and ultimate disposal of nuclear waste at Turkey Point Units 6 and 7. *See* Licensing Board Order (Denying Waste Confidence Contention Motions and Dismissing CASE) at 2 (Sept. 10, 2014) (unpublished). Following the Commission's adoption of the Continued Storage Rule and accompanying Generic Environmental Impact Statement, this Board denied CASE's petition. *See id.* at 3.

In February 2015, the NRC Staff published the Draft Environmental Impact Statement (DEIS) for Turkey Point Units 6 and 7.[5] CASE filed another petition to intervene seeking to challenge the DEIS, but in June 2015, this Board denied CASE's petition. *See* Licensing Board Memorandum and Order (Denying CASE's Petition to Intervene) at 17 (June 25, 2015) (unpublished) [hereinafter Licensing Board June 25, 2015 Order].[6]

This brings us to the status of this proceeding when we received CASE's November 28, 2016 petition; namely, (1) Joint Intervenors' Contention 2.1, as amended and reformulated, is the sole contention pending before us, *see* LBP-16-3, 83 NRC 169, 185-86 (2016); (2) a hearing is scheduled to be held in May 2017 to create an evidentiary record for the purpose of resolving Contention 2.1, *see* Licensing Board Order (Amending Final Scheduling Order) (Nov. 15, 2016) (unpublished); and (3) the Village of Pinecrest and the City of Miami are participating as interested local governmental bodies. *See supra* notes 2 and 6.

In its new petition, CASE proffers four contentions alleging deficiencies in the October 2016 FEIS. *See* CASE Petition at 4.

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[2] Although we denied the Village of Pinecrest's petition to intervene, we granted its request to participate as an interested local governmental body pursuant to 10 C.F.R. § 2.315(c). *See* LBP-11-6, 73 NRC at 251-52.

[3] *See* Licensing Board Memorandum and Order (Granting FPL's Motions to Dismiss Joint Intervenors' Contention 2.1 and CASE's Contention 6 as Moot) at 6 (Jan. 26, 2012) (unpublished).

[4] *See* Licensing Board Memorandum and Order (Granting FPL's Motion for Summary Disposition of CASE Contention 7) at 14 (Feb. 28, 2012) (unpublished).

[5] *See* Division of New Reactor Licensing, Office of New Reactors, Environmental Impact Statement for [COLs] for Turkey Point Nuclear Plant Units 6 and 7 Draft Report for Comment, NUREG-2176 (Feb. 2015) (ADAMS Accession Nos. ML15055A103 and ML15055A109) [hereinafter DEIS].

[6] The City of Miami also filed a petition that alleged deficiencies in the DEIS. In June 2015, this Board denied Miami's request to intervene, but we granted its request to participate as an interested local governmental body. *See* LBP-15-19, 81 NRC 815, 828 (2015).

On December 19, 2016, FPL and the NRC Staff filed answers arguing that CASE's petition should be denied because (1) CASE fails to demonstrate standing as required by 10 C.F.R. § 2.309(a); (2) CASE's contentions fail to satisfy the timeliness standard in 10 C.F.R. § 2.309(c)(1); and (3) CASE's contentions fail to satisfy the admissibility standards in 10 C.F.R. § 2.309(f)(1). *See* [FPL's] Answer Opposing [CASE's] Petition to Intervene and Request for Hearing Regarding the [FEIS] for Turkey Point 6 & 7 at 13-61 (Dec. 19, 2016) [hereinafter FPL Answer]; NRC Staff Answer to [CASE] Petition to Intervene and Request for Hearing in Opposition to the [FEIS] Granting COLs for Turkey Point Units 6 & 7 at 11-41 (Dec. 19, 2016) [hereinafter NRC Staff Answer].

CASE declined to file a reply.

II. CASE SATISFIES STANDING REQUIREMENTS

To participate in an NRC licensing proceeding, a petitioner must establish standing. *See* 10 C.F.R. § 2.309(a). CASE previously established standing as a party in this proceeding, *see* LBP-11-6, 73 NRC at 226-27, but this Board subsequently dismissed CASE for failure to maintain a live contention. *See* LBP-12-7, 75 NRC at 520. Section 2.309(c)(4) nonetheless states that "[i]f a party or *participant* has already satisfied the requirements for standing under paragraph (d) of this section in the same proceeding in which the new or amended contentions are filed, it does not need to do so again." 10 C.F.R. § 2.309(c)(4) (emphasis added). Section 2.4 defines "participant" as "an individual or organization (including a governmental entity) that has petitioned to intervene in a proceeding or requested a hearing but that has not yet been granted party status by [the Board]." 10 C.F.R. § 2.4. Thus, although CASE is no longer a party in this proceeding, its latest petition to intervene makes it a "participant," as defined in section 2.4, and therefore subject to section 2.309(c)(4). Because CASE previously established standing in this proceeding, it "does not need to do so again." 10 C.F.R. § 2.309(c)(4).

Despite the clear language in 10 C.F.R. § 2.309(c)(4), the NRC Staff and FPL argue that CASE must make a fresh demonstration of standing, because its circumstances may have changed since it last demonstrated standing. *See* NRC Staff Answer at 7 (citing *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138 (2010); *Crow Butte Resources, Inc.* (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 343 (2009)); FPL Answer at 14-15 (discussing *Texas Utilities Electric Co.* (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 162-63 (1993)). Although this is a cogent argument, we decline to adopt it because it flies in the face of the plain language of section 2.309(c)(4). Moreover, the cases cited by the NRC Staff and FPL all predate the governing language in section 2.309(c)(4), which

was added in 2012. *See* Amendments to Adjudicatory Process Rules and Related Requirements, 77 Fed. Reg. 46,562, 46,582-83 (Aug. 3, 2012).[7]

Even if CASE had to make a fresh showing of standing, we would still conclude that CASE satisfies standing requirements.[8] A petitioner's standing is generally determined by applying contemporaneous concepts of judicial standing. *See, e.g., Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993). However, the Commission recognizes a "proximity presumption" in certain proceedings, including COL applications, for petitioners living within 50 miles of the facility at issue, which effectively dispenses with the need to make an affirmative showing of injury, causation, and redressability. *See, e.g., Calvert Cliffs 3 Nuclear Project, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915-16 (2009).

When an organization, such as CASE, seeks to intervene on behalf of its members, it can establish representational standing by showing that (1) at least one member would otherwise have standing to sue in his or her own right; (2) the interests that the organization seeks to protect are germane to its purpose; and (3) neither the claim asserted nor the relief requested requires an individual member to participate in the organization's lawsuit. *See Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999). The Commission also requires an organization to demonstrate that the member who would have standing to sue in his or her own right has explicitly authorized the organization to represent the member's interests. *See id.*

We conclude that CASE satisfies the requirements for representational standing under the proximity presumption. A member submitted a declaration in support of CASE's petition attesting that (1) he lives within 16 miles of Turkey Point; and (2) he authorizes CASE to represent his interests. *See* Walter Harris Declaration (Nov. 25, 2016). CASE and its member express the jointly shared concern that the construction and operation of Turkey Point Units 6 and 7 will impair the environment, including local groundwater and surface waters. *See*

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[7] When CASE filed a hearing request in 2015 to challenge the DEIS, we required it to make a fresh demonstration of standing because (1) it had been dismissed as a party 3 years earlier; and (2) guided by the Commission's rationale in *Bell Bend,* CLI-10-7, 71 NRC at 138, we concluded that the burden was on CASE to show that its circumstances had not changed and that it still had standing. *See* Licensing Board June 25, 2015 Order at 3 n.17. But our analysis in that order did not take into account section 2.309(c)(4), which makes clear that because CASE "has already satisfied the requirements for standing" in this proceeding, "it does not need to do so again." 10 C.F.R. § 2.309(c)(4).

[8] In conducting our standing analysis, we are mindful that CASE is a *pro se* litigant and, accordingly, we hold it to "less rigid pleading standards, so that parties with a clear — but imperfectly stated — interest in the proceedings are not excluded." *U.S. Army Installation Command* (Schofield Barracks, Oahu Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), CLI-10-20, 72 NRC 185, 192 (2010).

id.; CASE Petition at 3-38. Finally, neither CASE's proffered contentions nor the relief sought requires an individual member to participate in this proceeding. CASE has thus, once again, established representational standing to intervene in this proceeding.

III. CASE FAILS TO PROFFER AN ADMISSIBLE CONTENTION

A. Legal Standards for Contention Admissibility

To participate in an NRC licensing proceeding, in addition to demonstrating standing, a petitioner must also proffer at least one timely and admissible contention. *See* 10 C.F.R. § 2.309(a). We therefore must determine whether CASE's four proffered contentions satisfy (1) the timeliness standard in 10 C.F.R. § 2.309(c)(1); and (2) the contention admissibility standard in 10 C.F.R. § 2.309(f)(1). Failure to satisfy either standard requires the Board to reject a proffered contention.

Regarding timeliness, and as relevant here, when a COL application is docketed, a petitioner seeking to raise contentions under the National Environmental Policy Act (NEPA) must base them on the applicant's environmental report (ER), *see* 10 C.F.R. § 2.309(f)(2), and the deadline for filing the petition is typically 60 days after the notice of hearing and opportunity to intervene is published in the *Federal Register. See id.* § 2.309(b). After the deadline for filing contentions based on the ER has passed, a petitioner seeking to file an environmental-related contention must show good cause for its belated filing by showing that

> (i) The information upon which the filing is based was not previously available;
> (ii) The information upon which the filing is based is materially different from information previously available; and
> (iii) The filing has been submitted in a timely fashion based on the availability of the subsequent information.[9]

Id. § 2.309(c)(1); *see also id.* § 2.309(f)(2).

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[9] As relevant here, pursuant to this Board's Initial Scheduling Order, petitioners were required to file new contentions within 30 days of the date when the new and material information on which new contentions could be based became available. *See* Initial Scheduling Order and Administrative Directives (Prehearing Conference Call Summary, Grant of Joint Motion Regarding Mandatory Disclosures, Initial Scheduling Order, and Administrative Directives) at 8 (Mar. 30, 2011) (unpublished). This Board subsequently issued an order directing that petitioners seeking leave to file new contentions based on the FEIS must file such contentions within 25 days of the FEIS's issuance. *See* Licensing Board Memorandum and Order (Prehearing Conference Call Summary, Case Management Directive, and Scheduling Order) at 3 (Oct. 5, 2016) (unpublished).

In addition to satisfying the three-prong good cause standard for a belated hearing request, a petitioner must show that at least one of the newly proffered contentions satisfies the six-factor admissibility standard in section 2.309(f)(1), which requires the petitioner to

> (i) Provide a specific statement of the issue of law or fact to be raised or controverted . . . ;
>
> (ii) Provide a brief explanation of the basis for the contention;
>
> (iii) Demonstrate that the issue raised in the contention is within the scope of the proceeding;
>
> (iv) Demonstrate that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding;
>
> (v) Provide a concise statement of the alleged facts or expert opinions which support the requestor's/petitioner's position on the issue and on which the petitioner intends to rely at hearing, together with references to the specific sources and documents on which the requestor/petitioner intends to rely to support its position on the issue; [and]
>
> (vi) . . . [P]rovide sufficient information to show that a genuine dispute exists with the applicant/licensee on a material issue of law or fact. This information must include references to specific portions of the application (including the applicant's environmental report and safety report) that the petitioner disputes and the supporting reasons for each dispute, or, if the petitioner believes that the application fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief.

10 C.F.R. § 2.309(f)(1). This standard is "strict by design," *Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), and a licensing board must reject a contention that does not meet all six criteria. *See USEC Inc.* (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006).

B. Contention Admissibility Analysis

1. Contention 1 Is Not Admissible

CASE frames Contention 1 as follows:

> The use of reclaimed waste water for the cooling towers was not fully evaluated and is unlikely due to the high cost of removing nitrogen and phosphorus and the eventual unavailability of reclaimed waste water.

CASE Petition at 8. In Contention 1, CASE alleges that the FEIS inadequately considers factors that would prevent FPL from utilizing reclaimed wastewater

from the Miami-Dade Water and Sewer Department (MDWASD) as a source of cooling water for Turkey Point Units 6 and 7. *See id.* at 8-12.

By way of background, during normal operations of proposed Units 6 and 7, FPL intends to dissipate waste heat by mechanical draft cooling towers. *See* FEIS at xxxii, 3-31. Two sources of makeup cooling water will be available for the towers: (1) the primary source is the reclaimed wastewater from MDWASD that will be conveyed via pipelines to the Turkey Point site, where it will receive additional treatment from an onsite water-treatment facility; and (2) the secondary source is from four radial collector wells (RCWs) designed to withdraw seawater from under Biscayne Bay, and which will only be used when reclaimed wastewater from MDWASD is inadequate in quantity or quality to meet the needs of the cooling system. *See, e.g., id.* at xxxii, 2-24, 3-2, 3-8 to 3-9, 5-68. According to the FEIS, the four RCWs will be installed between 25 and 40 feet beneath the bed of Biscayne Bay and will be located on the northeastern boundary of the Turkey Point site. *See id.* at 3-9, 4-81. The Florida Department of Environmental Protection (FDEP) has limited FPL's use of the RCWs to a maximum of 60 days per year. *See id.* at 2-24, 5-9.

In Contention 1, CASE claims that it is likely that FPL will be unable to use the reclaimed wastewater from MDWASD as its primary source of cooling water due to (1) the high cost of FPL's plan to construct and operate an onsite reclaimed water-treatment facility to further treat the water from MDWASD; and (2) projected sea level rise. *See* CASE Petition at 8-9. Regarding costs, CASE alleges that "the estimated cost of building a plant to treat reclaimed wastewater from the [MDWASD facility] is, currently, $400 million dollars" and that, ultimately, the cost to build and operate such a facility will be cost prohibitive. *Id.* at 8. With respect to sea level rise, CASE contends that FPL will ultimately be forced to abandon its plan to use reclaimed wastewater from the MDWASD facility because rising sea levels will cause that facility to be inundated by seawater by 2050. *See id.* at 8-9. According to CASE, if FPL is unable to use reclaimed wastewater as planned due to prohibitively high costs or sea level rise, FPL would need to obtain permission from FDEP to increase its RCW use beyond the current 60-day limit. *See id.* at 12. CASE asserts that this increased use of the RCWs would negatively impact the Biscayne Aquifer. *See id.* at 11-12. CASE also posits that, unless the additional operating time for the RCWs is guaranteed, "it might not be possible to build the reactors at all." *Id.* at 12. CASE argues that the FEIS is deficient because it does not adequately consider the above possibilities.

FPL and the NRC Staff argue that Contention 1 is not admissible. *See* FPL Answer at 16-25; NRC Staff Answer at 13-21. We agree.

a. First, CASE has not met its burden of showing why Contention 1 should

not be rejected as inexcusably late. As explained *supra* Part III.A, a petition to intervene that is filed after the deadline for proffering contentions based on the ER "will not be entertained absent a determination by the [licensing board] that a participant has demonstrated good cause." 10 C.F.R. § 2.309(c)(1). To demonstrate "good cause," CASE is required to show that (1) the information on which Contention 1 is based was not previously available; (2) the previously unavailable information is materially different from information that was previously available; and (3) the filing has been submitted on a timely basis. *See id.*

CASE's petition fails even to cite section 2.309(c)(1), much less endeavor to show that Contention 1 satisfies the three-prong "good cause" standard. This failure alone provides a basis to reject Contention 1. *See Florida Power & Light Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Calvert Cliffs Independent Spent Fuel Storage Installation; Nine Mile Point Nuclear Station, Units 1 and 2; R.E. Ginna Nuclear Power Plant; Turkey Point Nuclear Generating Plant, Units 3 and 4; St. Lucie Nuclear Power Plant, Units 1 and 2; Seabrook Station; Duane Arnold Energy Center), CLI-06-21, 64 NRC 30, 34 (2006) (a petitioner's "failure to comply with our pleading requirements for late filings constitutes sufficient grounds for rejecting its [petition]").[10]

In any event, we conclude that CASE fails to satisfy the "good cause" standard in section 2.309(c)(1) because Contention 1 is not based on materially different information from that which was previously available. In its 2009 ER, FPL discussed its plan to use reclaimed wastewater from MDWASD as well as from four RCWs in the Biscayne Bay for its nonsafety-related circulating water system cooling.[11] CASE thus could have made its claims related to the feasibility of using reclaimed wastewater for cooling purposes in its 2010 petition to intervene. CASE presents nothing to suggest that new and materially different

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[10] This outcome is not changed by the fact that CASE is a *pro se* litigant. Such litigants "still are expected to comply with our procedural rules." *South Carolina Electric & Gas Co.* (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 6 (2010). CASE certainly cannot claim a lack of familiarity with the procedural requirements of 10 C.F.R. § 2.309(c)(1) given that two of the three contentions it proffered in its April 2015 petition challenging the DEIS were rejected for failing to comply with this very provision. *See* Licensing Board June 25, 2015 Order at 8, 11-12. We nevertheless consider *infra* in text whether Contention 1 satisfies the "good cause" standard, and we conclude that it does not.

[11] FPL, Turkey Point Units 6 & 7, COL Application, Environmental Report at 2.3-2 (rev. 0 July 2009) (ADAMS Accession No. ML091870926) [hereinafter ER]. The DEIS, issued in February 2015, also discussed FPL's planned use of reclaimed wastewater from MDWASD as its primary source for nonsafety-related circulating water system cooling, and water from the four RCWs when that wastewater is not available. *See* DEIS at 2-26, 5-53 to 5-54. CASE's sole citation to the FEIS in support of Contention 1, *see* CASE Petition at 12 (quoting FEIS at 5-68), is a quote that appears nearly verbatim in the DEIS. *See* DEIS at 5-53 to 5-54.

information has emerged since then to support the filing of a new contention now. We therefore reject Contention 1 as inexcusably late.[12]

b. Even if CASE had shown good cause for its belated filing of Contention 1, we would deem it to be inadmissible pursuant to 10 C.F.R. § 2.309(f)(1). First, CASE does not provide any documentary or expert opinion to support its cursory assertion that FPL's reclaimed water-treatment facility will be so prohibitively expensive to construct and maintain as to cause FPL to rely exclusively on RCW water for cooling. *See* CASE Petition at 8. CASE's failure to provide supporting information mandates rejection of this aspect of Contention 1 pursuant to section 2.309(f)(1)(v).[13]

Regarding its inundation argument, CASE fails to acknowledge or challenge the sea level rise discussion in the FEIS. *See, e.g.,* FEIS at I-3, I-6, I-8, I-16 to I-17. Indeed, the FEIS expressly considers the potential impact of sea level rise on the MDWASD facility, observing that a "substantial increase in sea level rise . . . could impact the [MDWASD] treatment plant" and cause Miami Dade County to "adapt some of its wastewater treatment infrastructure." *Id.* at I-6. The FEIS concludes, however, that adaptations, if required, would be foreseeable and nonproblematic in light of "the abundance of wastewater in this region" and "the critical public health role of these facilities." *Id.* CASE's failure to reference these portions of the FEIS or take issue with them renders the inundation aspect of Contention 1 inadmissible for failing to show a genuine dispute on a material issue of fact or law, as required by 10 C.F.R. § 2.309(f)(1)(vi).[14]

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[12] Notably, in their 2010 petitions, both CASE and Joint Intervenors raised contentions regarding the impact of sea level rise on proposed Units 6 and 7, which were rejected as inadmissible. *See* LBP-11-6, 73 NRC at 215-17, 235-37. CASE fails to show that its current assertions regarding sea level rise are based on new information that is materially different from that which was previously available.

Additionally, in 2010, Joint Intervenors raised contentions regarding reclaimed wastewater and RCW usage that bear substantial similarities to CASE's newly proffered Contention 1. More precisely, in 2010, Joint Intervenors argued that (1) the ER insufficiently considered whether reclaimed wastewater from MDWASD will be adequate to serve as the primary source of cooling water for Units 6 and 7; and (2) the ER insufficiently considered the impact of RCW usage on the environment. *See* LBP-11-6, 73 NRC at 173-86. These contentions were rejected as inadmissible. *See id.* CASE fails to show that its current assertions regarding reclaimed wastewater and RCW usage are based on new information that is materially different from that which was previously available.

[13] Although CASE mentions the "high cost of removing nitrogen and phosphorus," CASE Petition at 8, it provides no support regarding the actual costs associated with removing those, or any other constituents, from the reclaimed wastewater.

[14] CASE also ignores the extensive sea level rise analysis in the NRC Staff's safety review documents. *See, e.g.,* Division of New Reactor Licensing, Office of New Reactors, Final Safety Evalu-

(Continued)

2. Contention 2 Is Not Admissible

CASE frames Contention 2 as follows:

> The probable heavy use of water from the [Biscayne Aquifer][15] using radial collector wells has not been fully evaluated and could result in catastrophic drainage of actual and near freshwater from the [Biscayne Aquifer] required to abate saltwater intrusion and for human use.

CASE Petition at 12. Contention 2 alleges that the FEIS's reliance on groundwater modeling performed by FPL and the U.S. Geological Survey (USGS) is misplaced because the FEIS acknowledges that aspects of these models are uncertain and, accordingly, they cannot accurately predict the environmental impacts caused by the operation of the RCWs on the Biscayne Aquifer. *See id.* at 13-15. CASE asserts that, as a result of this deficiency in the FEIS, FPL's plans to pump millions of gallons of water a day from the Biscayne Aquifer with these RCWs could exacerbate saltwater intrusion in the surrounding area. *See id.* at 15.

FPL and the NRC Staff argue that Contention 2 is not admissible. *See* FPL Answer at 26-31; NRC Staff Answer at 21-27. We agree.

a. First, CASE fails to address whether "good cause" exists for its belated filing of Contention 2, as required by 10 C.F.R. § 2.309(c)(1). This failure alone constitutes sufficient grounds for rejecting the contention. *See supra* note 10 and accompanying text.

Moreover, we conclude that Contention 2 does not satisfy the "good cause" standard of section 2.309(c)(1) because it is not based on new information that is materially different from that which was previously available. Contention 2 alleges a deficiency in the FEIS analysis due to uncertainties in the FPL

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ation Report for [COLs] for Turkey Point Nuclear Plant Units 6 and 7, Ch. 2: Site Characteristics, at 2-119 to 2-121, 2-176 to 2-180, 2-229 (Nov. 2016) (ADAMS Accession No. ML16264A045) [hereinafter FSER]; Division of New Reactor Licensing, Office of New Reactors, Advanced Safety Evaluation for Turkey Point Units 6 and 7 Combined License Application, Chapter 2: Site Characteristics, at 2-120 to 2-122 (July 14, 2016) (Accession No. ML15096A254); *see also* FEIS at I-16 (stating that the NRC Staff's Advanced Safety Analysis Report evaluated the effect of sea level rise on Units 6 and 7).

[15] Although Contention 2 states that the "heavy use of water from the Upper Floridan Aquifer" has not been fully evaluated and could adversely impact the "Upper Floridan Aquifer," CASE Petition at 12, CASE's arguments in support of Contention 2 discuss the possible impacts on the Biscayne Aquifer, not the Upper Floridan Aquifer. In addition, the FEIS makes clear that FPL plans to install four RCWs in the Biscayne Aquifer, not in the Upper Floridan Aquifer. *See* FEIS at 2-24. Accordingly, we consider Contention 2 to frame a concern about FPL's planned use of RCWs in the Biscayne Aquifer, not in the Upper Floridan Aquifer.

and USGS modeling. *See* CASE Petition at 13-14. But the detailed summary of these modeling efforts that CASE challenges also appeared in the DEIS. *Compare* FEIS, App. G, at G-28 to G-31 *with* DEIS, App. G, at G-28 to G-31. Indeed, all of the FEIS excerpts cited by CASE in support of Contention 2, *see* CASE Petition at 12-14, appear verbatim in the DEIS. *See* DEIS, App. G, at G-28 to G-30.[16]

Because Contention 2 is not based on any new and materially different information regarding uncertainties with the FPL and USGS modeling from that which was available when the DEIS was issued in February 2015, or earlier, we reject it as inexcusably late.[17]

b. Even if CASE had shown good cause for its belated filing of Contention 2, we would reject it as inadmissible because CASE does not demonstrate a genuine dispute with the FEIS, as required by 10 C.F.R. § 2.309(f)(1)(vi).

Contrary to CASE's assertion, *see* CASE Petition at 15, the FEIS does not ignore uncertainties in the FPL and USGS modeling. The FEIS acknowledges that "complete knowledge of the hydrologic system associated with the RCWs is not now available, and that uncertainties therefore remain in the impact analysis." FEIS at 5-16. The FEIS proceeds to identify the modeling uncertainties as follows:

> The sources of uncertainty in the RCW analysis include heterogeneity in subsurface parameters, lack of experience with RCW systems in carbonate strata, and uncertainty in the potential need for using the backup water supply. Uncertainties in the future site environment include freshening of the [industrial wastewater facility] cooling canals, remediation of the subsurface hypersaline plume, and the magnitude and rate of future sea-level rise.

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[16] CASE's argument with respect to FPL's groundwater modeling effort is especially untimely given that FPL's groundwater model was included as part of the 2009 ER. *See* ER at 5.2-8 to 5.2-9. In fact, in 2015, the Board rejected a similar contention proffered by the City of Miami as untimely because the proposed contention focused "solely on FPL's base case groundwater model, which had been available for years as part of FPL's initial application." LBP-15-19, 81 NRC at 826; *see also* LBP-11-6, 73 NRC at 173-86 (rejecting as inadmissible contentions advanced by Joint Intervenors alleging that the ER inadequately addressed environmental impacts of the RCWs on the Biscayne Aquifer and the Biscayne Bay ecosystem).

[17] The FEIS also considered a third modeling analysis performed by the NRC Staff that was completed after the DEIS's publication. *See* FEIS, App. G, at G-26, G-46 to G-48. CASE's arguments advancing Contention 2 do *not* rely on that analysis. Even if CASE had relied on the NRC Staff's modeling (which it does not), and even if that modeling were deemed to be new and materially different information (which CASE does not argue), Contention 2 would not satisfy the admissibility standard of section 2.309(f)(1)(vi). *See infra* Part III.B.2.b.

Id. at 5-18. Accordingly, the FEIS states that the NRC Staff's analysis "does not rely solely on the output of any numerical model," *id.,* and that the "results from both the USGS model and the FPL groundwater model were only used qualitatively by the review team to understand potential impacts." *Id.* at 5-17. In performing its analysis, the NRC Staff considered the USGS and FPL modeling results within the construct of the following factors to conclude that the impact of RCW pumping on the Biscayne Aquifer would be minor: (1) the review team's knowledge of the geographic layout of the RCW field, *id.*; (2) the state of Florida's monitoring and mitigation requirements, *id.*; (3) the fact that FPL would only be allowed to pump water from the RCWs for a maximum of 60 days a year, *id.*; and (4) the NRC Staff's independent groundwater modeling of the interaction between the planned RCWs and the existing hypersaline plume underneath the cooling canals servicing other units at Turkey Point. *Id.* at 5-15 to 5-18, 5-36 to 5-37; *see also id.,* App. G, G-46 to G-48.

In its discussion of Contention 2, CASE fails to point to a specific deficiency in the FEIS beyond a conclusory assertion that the FEIS's analysis of the effect of RCW pumping on the Biscayne Aquifer is "uncertain" and therefore deficient. *See* CASE Petition at 13-15. Such a nebulous attack fails to raise a genuine dispute regarding a material issue of fact or law, as is required by 10 C.F.R. § 2.309(f)(1)(vi). Contention 2 is therefore not admissible.

3. Contention 3 Is Not Admissible

CASE frames Contention 3 as follows:

> The impact of injecting toxic chemicals and liquid radwaste laden water from the reactors directly into the Boulder Zone was not fully evaluated in the EIS.

CASE Petition at 16. In Contention 3, CASE alleges that the wastewater injected into the Boulder Zone will migrate beyond the Boulder Zone in all directions. *See id.* at 17. Citing a section of the FEIS that evaluates the confinement characteristics of the Boulder Zone, CASE asserts that the NRC Staff did not adequately consider this topic in its review of Turkey Point Units 6 and 7. *See id.* at 20-21 (citing FEIS at 5-21 to 5-29).

CASE also expresses concern about the composition of the wastewater from Turkey Point Units 6 and 7 and the impact of that wastewater on the environment. According to CASE, "[by] not fully evaluating the implications of toxic chemicals and even low levels of tritium, cesium, and strontium 90 which will be introduced in the Boulder Zone, the [FEIS] reaches dangerous and unsupported conclusions." CASE Petition at 26. CASE opines that the contaminated wastewater might migrate beyond the Boulder Zone and adversely affect the groundwater and the Atlantic Ocean. *See id.* at 30.

FPL and the NRC Staff argue that Contention 3 is not admissible. *See* FPL Answer at 31-45; NRC Staff Answer at 28-35. We agree.

First, CASE fails to address whether "good cause" existed for its belated filing of Contention 3, as required by 10 C.F.R. § 2.309(c)(1). This failure alone constitutes sufficient grounds for rejecting the contention. *See supra* note 10 and accompanying text.

Moreover, Contention 3 does not satisfy the "good cause" standard of section 2.309(c)(1) because it is not based on new information that is materially different from that which was previously available. Basically, Contention 3 asserts that the FEIS fails to consider adequately whether the contaminated wastewater injected into the Boulder Zone from Units 6 and 7 will migrate beyond the Boulder Zone, thereby adversely impacting the environment. This assertion is substantially similar to Contention 2.1, which is pending before this Board and was originally submitted in 2010 by Joint Intervenors. *See* LBP-11-6, 73 NRC at 251-52. As currently formulated, Contention 2.1 alleges that the NRC Staff erred in concluding that the environmental impacts from FPL's deep injection wells will be "small," because certain contaminants in the wastewater may migrate from the Boulder Zone to the Upper Floridan Aquifer and adversely impact the groundwater. *See* LBP-16-3, 83 NRC at 186.

That CASE's newly proffered contention is substantially similar to the contention filed with this Board in 2010 is a persuasive indicator that Contention 3 is untimely. That Contention 3 is not grounded on any new information that is materially different from that which was previously available leads dispositively to the conclusion that Contention 3 is inexcusably late and must, therefore, be rejected pursuant to 10 C.F.R. § 2.309(c)(1).[18]

4. Contention 4 Is Not Admissible

CASE frames Contention 4 as follows:

> NEPA was not fully honored in spirit or letter by the NRC Staff which approved measures harmful to the environment.

CASE Petition at 31. CASE argues in Contention 4 that the FEIS violates NEPA in several respects. First, CASE alleges that the FEIS improperly relies on computer modeling, rather than on field research or studies, for conducting

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[18] CASE's proposed Contention 3 differs from (and exceeds the scope of) Joint Intervenors' Contention 2.1 insofar that it asserts that the wastewater (1) contains radioactive contaminants; and (2) might migrate to the Atlantic Ocean. But these differences do not provide a basis for satisfying the "good cause" standard because CASE fails to show that its arguments are grounded on new information that is materially different from that which was previously available.

environmental analyses. *See id.* at 32. Second, CASE argues that the NRC Staff's failure to evaluate alternative energy sources "including solar, wind, and geothermal energy is a major shortcoming" of the FEIS. *Id.* at 36; *see also id.* at 33-37.

FPL and the NRC Staff argue that Contention 4 is not admissible. *See* FPL Answer at 45-61; NRC Staff Answer at 35-41. We agree.

a. First, CASE fails to address whether "good cause" exists for its belated filing of Contention 4, as required by 10 C.F.R. § 2.309(c)(1). This failure alone constitutes sufficient grounds for rejecting the contention. *See supra* note 10 and accompanying text.

Moreover, Contention 4 does not satisfy the "good cause" standard in section 2.309(c)(1) because it is not based on new information that is materially different from that which was previously available in the DEIS. With regard to CASE's argument concerning the FEIS's improper reliance on computer modeling in lieu of field research or studies, CASE appears to be challenging the FPL and USGS computer modeling for the RCWs. *See* CASE Petition at 32. But there is no reason that CASE could not have raised such concerns earlier, in particular when the DEIS issued in February 2015, because, as discussed *supra* Part III.B.2.a, the DEIS contained the same detailed summary of the FPL and USGS modeling that appears in the FEIS. CASE cannot justify raising this untimely claim now.

CASE's assertion that the NRC Staff's evaluation of energy alternatives in the FEIS is insufficient is also untimely, because the Staff's evaluation of energy alternatives in the FEIS is neither new nor materially different from that which was presented in the DEIS. DEIS section 9.2 discusses potential environmental impacts associated with alternatives to construction of a new baseload nuclear power plant. More specifically, DEIS sections 9.2.3.2, 9.2.3.3, and 9.2.3.5 discuss, respectively, the potential for wind power, solar power, and geothermal energy — the three alternative energy sources explicitly mentioned by CASE, *see* CASE Petition at 36 — to replace the electricity to be produced by Units 6 and 7. The discussion of these three alternatives in the DEIS is substantively unchanged in the FEIS. *See* FEIS at 9-23 to 9-25, 9-26. Accordingly, any concerns CASE has with respect to the NRC Staff's consideration of energy alternatives could, and should, have been raised following publication of the DEIS. We therefore reject Contention 4 as inexcusably late pursuant to 10 C.F.R. § 2.309(c)(1).[19]

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[19] To the extent that Contention 4 is grounded on a claim that the NRC Staff violated NEPA by condoning the use of deep injection wells for the disposal of contaminated wastewater, *see* CASE Petition at 33, 38, that argument is unjustifiably late for the reasons discussed *supra* Part III.B.3.a.

b. Contention 4 must also be rejected because it fails to satisfy the admissibility standard in section 2.309(f)(1). To the extent Contention 4 is based on concerns about the insufficiency of computer modeling, *see* CASE Petition at 32, the allegations are vague and ill-defined. Such imprecision in a contention renders it inadmissible pursuant to the specificity requirement in section 2.309(f)(1)(i). Moreover, CASE's claim in Contention 4 that the computer modeling must be supplemented with additional field research or studies, *see id.,* is unsupported by fact or expert opinion, which renders the contention inadmissible pursuant to section 2.309(f)(1)(v). Finally, CASE errs in making the categorical assertion that "[n]o field research or studies specifically related to this monumental project were reported" in the FEIS. *Id.* Numerous field studies are reported in section 11 of the FEIS. *See* FPL Answer, Attach. A (listing examples of the field studies). Because this aspect of Contention 4 is based on an erroneous factual predicate, it is inadmissible pursuant to section 2.309(f)(1)(vi) for failure to show that a genuine dispute exists on a material issue of law or fact.

CASE also claims in Contention 4 that the FEIS inadequately examines the feasibility of alternative energy sources. *See* CASE Petition at 34-37. This claim fails to acknowledge that the FEIS includes a comprehensive analysis of a number of alternative energy technologies, including wind, solar, geothermal, and hydropower. *See* FEIS 9-22 to 9-30. This aspect of Contention 4 must therefore be rejected because (1) it is unsupported by fact or expert opinion, rendering it inadmissible pursuant to section 2.309(f)(1)(v); and (2) it fails to raise a genuine dispute on a material issue of fact or law, rendering it inadmissible pursuant to section 2.309(f)(1)(vi).[20]

IV. CONCLUSION

For the foregoing reasons, this Board *denies* CASE's petition to intervene.

CASE may file an appeal of this Memorandum and Order within 25 days of service of this Order. Any party opposing the appeal may file a brief in opposition within 25 days after service of the appeal. *See* 10 C.F.R. § 2.311(b).

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[20] To the extent that Contention 4 suggests that the NRC Staff exhibited improper bias in favor of nuclear energy in reviewing these alternative sources of energy, *see* CASE Petition at 34, it is inadmissible because (1) it is outside the scope of this proceeding pursuant to section 2.309(f)(1)(iii); (2) it is unsupported by fact or expert opinion pursuant to section 2.309(f)(1)(v); and (3) it fails to demonstrate a genuine dispute with the FEIS pursuant to section 2.309(f)(1)(vi).

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
January 13, 2017

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of	**Docket Nos. 52-025-LA-2** **52-026-LA-2**
SOUTHERN NUCLEAR OPERATING COMPANY, INC. **(Vogtle Electric Generating Plant, Units 3 and 4)**	**February 16, 2017**

DESIGN CERTIFICATION

FINALITY

New requirements cannot be imposed on a certified design absent special circumstances. 10 C.F.R. § 52.63.

DESIGN CERTIFICATION

FINALITY

CONTENTIONS, ADMISSIBILITY

A certified design may not be challenged in an adjudicatory proceeding absent a waiver of the regulation certifying the design.

DESIGN CERTIFICATION

FINALITY

CONTENTIONS, ADMISSIBILITY

Criteria for locating a component included in the design certification document of a certified design have the force and effect of a regulation, such that a component located in accordance with the applicable criteria may not be challenged in an adjudication absent a waiver of the regulation.

MEMORANDUM AND ORDER

Petitioner, Blue Ridge Environmental Defense League, with its chapter Concerned Citizens of Shell Bluff (BREDL) appeals the Atomic Safety and Licensing Board's decision denying it a hearing in this license amendment matter.[1] For the reasons given by the Board and as explained below, we affirm the Board's decision.

I. BACKGROUND

The NRC issued combined licenses to Southern Nuclear Operating Company, Inc., for the construction and operation of Vogtle Electric Generating Plant, Units 3 and 4, in 2012.[2] The units, which are Westinghouse Advanced Passive 1000 (AP1000) pressurized water reactors, are currently under construction. The AP1000 is a certified reactor design.[3]

The AP1000 design includes a containment hydrogen control system with a hydrogen ignition subsystem; the system as a whole is intended to limit the concentrations of hydrogen in containment following a severe accident.[4] NRC regulations at 10 C.F.R. § 50.44 and 10 C.F.R. Part 50, Appendix A, General Design Criterion (GDC) 41, require limiting concentrations of combustible gas, such as hydrogen, to ensure containment integrity. Specifically, water-cooled

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[1] Notice of Appeal from ASLB's Denial of Petitioner's Request for Intervention and a Brief Supporting Notice of Appeal (Oct. 11, 2016) (Appeal); *see* LBP-16-10, 84 NRC 17 (2016).

[2] *See generally* Combined License Vogtle Electric Generating Plant Unit 3, Southern Nuclear Operating Company, Inc., License No. NPF-91 (Feb. 10, 2012) (ADAMS Accession No. ML14100A106), Combined License Vogtle Electric Generating Plant Unit 4, Southern Nuclear Operating Company, Inc., License No. NPF-92 (Feb. 10, 2012) (ML14100A135).

[3] *See* 10 C.F.R. pt. 52, app. D.

[4] AP1000 Design Control Document, Rev. 19, ch. 6, Engineered Safety Features, Tier 2 Material, § 6.2.4.2.3 (June 11, 2011), at 6.2-38 (ML11171A458) (AP1000 DCD).

reactors licensed after October 16, 2003 (such as Vogtle Units 3 and 4) must: (1) be able to maintain a mixed atmosphere during significant beyond-design-basis accidents, (2) have an inerted atmosphere, or limit hydrogen concentrations in containment to less than ten percent by volume during and following an accident that releases an equivalent amount of hydrogen as would be generated from a 100 percent fuel clad-coolant reaction, (3) demonstrate the ability to "establish and maintain safe shutdown and containment structural integrity with systems and components capable of performing their functions" in environmental conditions that would be created by the burning of hydrogen in an amount equivalent to that generated by a 100 percent fuel clad-coolant reaction, and (4) have equipment to monitor hydrogen.[5] Further, a license applicant must perform an analysis that demonstrates containment structural integrity including in an accident "that releases hydrogen generated by a 100 percent fuel clad-coolant reaction accompanied by burning."[6] When the AP1000 design was certified, the Staff found that the hydrogen control system met the requirements of 10 C.F.R. § 50.44 and GDC 41.[7]

The hydrogen ignition subsystem of the AP1000 design, as certified, consists of sixty-four igniters distributed throughout the containment and located "in major regions or compartments where hydrogen may be released, through which it may flow, or where it may accumulate."[8] The certified design includes general igniter location criteria, including a requirement that igniters be placed "[i]n locations where the potential hydrogen release location can be defined, i.e.[,] above the [In-containment Refueling Water Storage Tank (IRWST)] spargers, at IRWST vents, etc[., such that] igniter coverage is provided as close to the source as feasible."[9] After the AP1000 design was certified, Westinghouse performed a design review and recommended adding two hydrogen igniters above

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[5] 10 C.F.R. § 50.44(c); *see* LBP-16-10, 84 NRC at 38-40. GDC 41, "Containment Atmosphere Clean-up" provides, as relevant here, "Systems to control . . . hydrogen . . . shall be provided as necessary . . . to control the concentration of . . . hydrogen . . . in the containment following postulated accidents to assure that containment integrity is maintained." 10 C.F.R. pt. 50, app. A, GDC 41.

[6] 10 C.F.R. § 50.44(c)(5).

[7] Final Safety Evaluation Report Related to Certification of the AP1000 Standard Design, Vol. 1, chs. 1-9, NUREG-1793, at 6-71 (Sept. 30, 2004) (AP1000 FSER) (ML043450354).

[8] AP1000 DCD, at 6.2-42; *see also id.* at 6.2-113 (Table 6.2.4-6, "Igniter Location").

[9] *Id.* at 6.2-113 (Table 6.2.4-6).

the IRWST roof vents.[10] This recommendation was made to better satisfy the certified igniter location criteria.[11]

In accordance with Westinghouse's recommendation, Southern's license amendment request sought to add two hydrogen igniters immediately above the IRWST roof vents.[12] As discussed in the request, the certified design calls for igniters inside the IRWST and at each of the four IRWST hooded vents along the containment wall, but hydrogen is expected to preferentially escape from the roof vents located away from the containment shell.[13] The nearest igniters outside the roof vents are located thirty feet above these roof vents. "[M]ixing in the volume above the IRWST where the plume is released from the IRWST vent is too complex to be accurately modeled to either quantitatively confirm the need for additional igniters or confirm that the current design . . . could control the local hydrogen releases from the roof vents."[14] Southern stated that the position of the two proposed new igniters was determined using criteria set forth in Table 6.2.4-6 of the Updated Final Safety Analysis Report (UFSAR), which incorporates a requirement from the AP1000 Design Control Document

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[10] *See* Letter from Wesley Sparkman, Southern Nuclear Operating Company, Inc., to NRC Document Control Desk, Response to Request for Additional Information, Request for License Amendment and Exemption: Containment Hydrogen Igniter Changes (LAR-15-003), encl. 5 at 2 (Sept. 15, 2015) (ML15258A555); *see also* Safety Evaluation by the Office of New Reactors Related to Exemption and Amendment No. 61 to the Combined License Nos. NPF-91 and NPF-92, Southern Nuclear Operating Company, Inc., Vogtle Electric Generating Plant Units 3 and 4, § 3.2.1, at 5 (ML16096A449) (License Amendment Safety Evaluation).

[11] License Amendment Safety Evaluation, § 3.2.1, at 5.

[12] *See* Letter from B.H. Whitley, Southern Nuclear Operating Company, Inc., to NRC Document Control Desk, "Vogtle Electric Generating Plant Units 3 and 4 Request for License Amendment and Exemption: Containment Hydrogen Igniter Changes (LAR-15-003)" (Feb. 6, 2015), encl. 1 at 3 (ML15037A715) (LAR-15-003). Southern also requested a related exemption from 10 C.F.R. Part 52, Appendix D, Section III.B for corresponding portions of the certified information in Tier 1 of the AP1000 design certification document. *See* LAR-15-003, encl. 2, Exemption Request. The request included other changes not at issue here. In particular, Southern also proposed to remove control of the hydrogen igniters from the protection and safety monitoring system, clarify the controls available for hydrogen igniters at the remote shutdown workstation, and make changes to certain design aspects of the igniters to maintain consistency within various licensing documents.

The Staff has now approved the license amendments. *See* Letter from C. Patel, NRC, to B.H. Whitley, Southern Nuclear Operating Company, Inc., "Vogtle Electric Generating Plant Units 3 & 4 — Issuance of Amendment No. 61 and Granting of Exemption re: Containment Hydrogen Igniter Changes (LAR-15-003) (CAC No. RP9506)" (Dec. 22, 2016) (ML16096A345) (package); Notification of Issuance of License Amendment (Jan. 5, 2017); *see also* Commission Notification of Significant Licensing Action (Dec. 13, 2016) (notifying us of the Staff's intent to issue the amendments and final no significant hazards consideration determination).

[13] LAR-15-003, encl. 1 at 11. The license amendment request explained that the igniters inside the IRWST may not effectively burn the hydrogen due to the lack of oxygen within the IRWST. *Id.*

[14] *Id.* at 4.

(DCD) that igniters be placed as close to a potential hydrogen source as "feasible."[15] This criterion is intended to ensure that hydrogen is burned as soon as it mixes with oxygen and prevents formation of "localized mixtures that could be susceptible to flame acceleration."[16]

Following a notice of opportunity to request a hearing, BREDL sought to intervene and proposed two interrelated contentions.[17] In its Contention One, BREDL claimed that the request was improperly based on "engineering judgment instead of rigorous testing and analysis."[18] BREDL argued that Southern had failed to analyze the possibility that a flame sparked by one of the igniters could "backflow," or "blow back through the IRWST roof vents . . . into the sub-compartment [of the containment] causing a serious detonation" in an area where excess hydrogen has accumulated.[19] In proposed Contention Two, BREDL asserted that the license amendment request (1) failed to consider "historical precedents of hydrogen explosions" (including the events at Fukushima) and (2) made erroneous assumptions about the formation and diffusion of hydrogen within the reactor containment.[20] In this contention BREDL also claimed that in conducting a new analysis Southern must consider a number of factors, such as sources of hydrogen other than that generated by an interaction between

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[15] *Id.* at 4; *see also* AP1000 DCD, Table 6.2.4-6, at 6.2-113.

[16] LAR-15-003, encl. 1 at 4. The request stated that even without the proposed igniters, "[c]ontainment integrity is not challenged" and explained, therefore, that the addition of two igniters "provides additional conservatism to a design [that] is already capable of meeting the design requirements for hydrogen control." *Id.* at 12. The request further indicated that the new igniters will be located "sufficiently away from the containment wall such that the hydrogen burn's zone of influence would not present a challenge to the containment wall." *Id.* at 4.

[17] Petition for Leave to Intervene and Request for Hearing by the Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff Regarding Southern Nuclear Operating Company's Request for a License Amendment and Exemption for Containment Hydrogen Igniter Changes, LAR-15-003 (May 2, 2016) (Petition); *see* Southern Nuclear Operating Company's Answer Opposing Petition to Intervene and Request for Hearing (May 27, 2016); NRC Staff Answer to Petition for Leave to Intervene and Request for Hearing (May 27, 2016) (Staff Answer); Reply of Blue Ridge Environmental Defense League and its Chapter Concerned Citizens of Shell Bluff to Answers of Nuclear Regulatory Commission and Southern Nuclear Operating Company, LAR-15-003 (June 3, 2016) (BREDL Reply); *see also* Vogtle Electric Generating Plant, Units 3 and 4, 81 Fed. Reg. 10,920 (Mar. 2, 2016) (providing, among other things, an opportunity to comment, request a hearing, and petition for leave to intervene).

[18] Petition at 7-10. In support of its petition, BREDL attached the affidavit of Arnold Gundersen. Declaration of Arnold Gundersen to Support the Petition for Leave to Intervene and Request for Hearing by the Blue Ridge Environmental Defense League Regarding Southern Nuclear Operating Company's Vogtle Electric Generating Plant Units 3 and 4 Request for License Amendment and Exemption: Containment Hydrogen Igniter Changes (LAR-15-003) (May 2, 2016) (Gundersen Declaration).

[19] *See* Petition at 10; Gundersen Declaration at 7-8.

[20] *See* Petition at 10-12.

the fuel cladding and water and whether the hydrogen is likely to "stratify," or separate into layers of concentration.[21] Contention Two reiterated the "back-flow" theory and the claim that Southern improperly relied on the "personal 'engineering judgment' of its engineers" — rather than "analysis" — to support the license amendment request.[22]

The Board denied BREDL's hearing request on the ground that BREDL did not submit an admissible contention.[23] The Board observed that the hydrogen control system of the AP1000 design, including the hydrogen igniters, was reviewed against the combustible gas control requirements during the design certification process.[24] The Board noted that during the AP1000 design certification process, both the locations of the sixty-four existing hydrogen igniters and the location criteria, including the criterion that they be placed as close to the hydrogen source as "feasible," were reviewed and found to meet the requirements of 10 C.F.R. § 50.44.[25]

The Board explained that 10 C.F.R. § 52.63 provides finality to a certified design, such that new requirements cannot be imposed on a certified design absent special circumstances.[26] And the Board observed that challenges to our regulations (including a design certification) in adjudicatory proceedings are prohibited in the absence of a waiver of that regulation.[27] Therefore, it found that BREDL could only challenge the two new proposed igniters with respect to issues specific to those two igniters; BREDL could not challenge the AP1000 design by arguing that further testing and analysis is necessary with respect to existing design criteria.[28]

The Board went on to hold that Contention One largely raised issues that had been analyzed during the rulemaking for the AP1000 certified design and that were not changed by the addition of two new igniters. The Board found

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[21] *Id.* at 11-12; Gundersen Declaration at 7.

[22] Petition at 11.

[23] LBP-16-10, 84 NRC at 22, 36-49. The Board found that BREDL had demonstrated standing to intervene in the proceeding. *See id.* at 24-36. The Board's standing determination is not at issue on appeal; we therefore do not discuss it further here.

[24] *Id.* at 38-40; *see also* AP1000 FSER at 6-71.

[25] LBP-16-10, 84 NRC at 38-40 (citing AP1000 FSER at 6-68, 6-71); *see also* 10 C.F.R. pt. 50, app. B, GDC 41.

[26] LBP-16-10, 84 NRC at 40; *see* 10 C.F.R. § 52.63(a)(1). Section 52.63(a)(1) provides that, "while a standard design certification rule is in effect," the Commission may not "impose new requirements on the certification information, whether on its own motion, or in response to a petition from any person" unless the Commission makes certain findings enumerated in the rule (and not at issue here).

[27] LBP-16-10, 84 NRC at 40-41 (citing 10 C.F.R. § 2.335). BREDL did not seek a waiver. *Id.* at 41.

[28] *Id.* at 41.

that Southern had followed the design criteria in the AP1000 design control document to locate the hydrogen igniters as close to the source as "feasible."[29] The Board reasoned that because the two proposed igniters conform to the previously approved criteria, requiring Southern to perform additional analyses would amount to imposing a new requirement on the certified design, in conflict with 10 C.F.R. § 52.63(a)(1).[30] The Board also found that BREDL's "backflow" argument did not raise a genuine dispute with the application because BREDL did not explain either how the proposed hydrogen igniters could cause a flame to "blow back" into the containment and cause an explosion or why that risk would be unique to the two proposed igniters.[31]

The Board held that Contention Two likewise raised matters that have been previously determined and thus fall outside the scope of the license amendment request. It rejected BREDL's argument that Southern should consider other potential sources of hydrogen because 10 C.F.R. § 50.44(c) does not require reactor license applicants to analyze sources of hydrogen other than that generated by a 100 percent fuel cladding-coolant reaction.[32] With respect to the argument that the license amendment request's technical analysis failed to account for Fukushima, the Board observed that the NRC has chosen to address the lessons learned from Fukushima related to hydrogen control generically through the rulemaking process.[33] Thus, it held that BREDL was "prohibited by 10 C.F.R. § 52.63(a)(2) from challenging the certified design, [and] its allegations regarding Fukushima [were] also outside of the scope of [the] proceeding because the Commission [had] decided to handle" post-Fukushima issues generically.[34] BREDL's appeal followed.[35]

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[29] *Id.* at 42 (citing AP1000 DCD at 6.2-113, UFSAR at 6.2-104). The Board observed that BREDL did not claim that the proposed igniters could be located any closer to the hydrogen source. *Id.*

[30] *Id.* at 43.

[31] *Id.* at 47-49 (citing 10 C.F.R. § 2.309(f)(1)(iii), (vi)).

[32] *Id.* at 44; *see also* Staff Answer at 4-7 (discussion of 2003 revision of 10 C.F.R. § 50.44, Combustible Gas Control in Containment (Final Rule), 68 Fed. Reg. 54,123 (Sept. 16, 2003)).

[33] *See* LBP-16-10, 84 NRC at 46-47.

[34] *Id.* at 47 (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999) (when an issue is resolved generically a petitioner's remedy is through the rulemaking process rather than adjudication)).

[35] BREDL has not appealed its claims regarding consideration in this license amendment matter of the events at Fukushima, alternate sources of hydrogen, or hydrogen stratification. We therefore need not address them here. *Progress Energy Carolinas, Inc.* (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 265 (2010).

II. DISCUSSION

Our regulations allow a petitioner whose hearing request has been wholly denied to appeal as of right.[36] We will defer to the Board's rulings on contention admissibility unless an appeal demonstrates an error of law or abuse of discretion.[37]

BREDL raises two general arguments on appeal.[38] First, BREDL argues that the Board improperly held that the issues that it has raised in this matter are challenges to the AP1000 certified design and therefore are barred in this individual license amendment proceeding. In particular, BREDL argues that because Southern did not "seek a rule change, a change in the certified reactor design, or alteration of any generic safety factor," BREDL's claims regarding the two new igniters are not barred by the finality of the AP1000 design certification rule.[39] Second, BREDL argues that the Board misapplied 10 C.F.R. § 50.44(c)(5) because the license amendment request relied on "personal 'engineering judgment'" rather than on a quantitative analysis with respect to the placement of the two additional hydrogen igniters. At bottom, BREDL reiterates claims that the Board found unavailing without confronting the substance of the Board's ruling and its associated finding that the proposed contentions were outside the scope of the proceeding. BREDL's failure to address the Board's reasoning is dispositive of its appeal.[40] We address BREDL's claims below.[41]

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[36] 10 C.F.R. § 2.311(c).

[37] *See, e.g., Crow Butte Resources, Inc.* (Marsland Expansion Area), CLI-14-2, 79 NRC 11, 13-14 (2014).

[38] Both Southern and the Staff argue that the Board's decision should be affirmed. *See* Southern Nuclear Operating Company's Brief in Opposition to Appeal (Nov. 7, 2016); NRC Staff's Answer in Opposition to the Blue Ridge Environmental Defense League's Appeal of LBP-16-10 (Nov. 7, 2016) (Staff Brief).

[39] Appeal at 3.

[40] *See, e.g., Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 638 (2004) (appellant's failure to challenge the Board's ruling that its proposed contention was outside the scope of the Board proceeding was sufficient justification for denying appeal); *Georgia Power Co.* (Vogtle Electric Generating Plant, Units 1 and 2), CLI-92-3, 35 NRC 63, 67 (1992) (a document that merely reiterates a party's prior position and general dissatisfaction with the outcome is no substitute for a brief that identifies and explains the claimed errors in a Board decision).

[41] After briefing on this appeal was completed, BREDL supplemented its arguments in a letter to then-Chairman Burns. *See* Letter from Louis A. Zeller, BREDL, to Stephen G. Burns, Chairman, NRC (Dec. 2, 2016) (ML16337A000). Citing portions of the transcript as support, BREDL argues that during oral argument on contention admissibility, the Board inappropriately strayed into the merits of BREDL's proposed contentions rather than focusing on their admissibility. To the extent that BREDL intends through this letter to supplement its appeal, its arguments are impermissibly late. *See* 10 C.F.R. § 2.311(b) (appeals due within 25 days following service of Board's order). We

(Continued)

A. Finality of Issues Resolved in the AP1000 Design Certification Rule

BREDL asserts that because Southern seeks only to modify its own licenses, rather than a rule change to modify the AP1000 certified reactor design, Southern is not protected by the finality of the design referenced in its license.[42] BREDL cites no support for this view. Fundamentally, BREDL's argument with reference to design finality is based on a misunderstanding of the design certification rule and how it confers finality on licensees referencing the certified design.

The Board correctly observed that the holder of a combined license that references a certified design is protected by the finality of the design.[43] Even where, as here, a combined license holder seeks to modify a design, the elements of the design that are not to be changed remain final.[44] Here, the location of the hydrogen igniters was determined on the basis of the igniter placement criteria identified in Table 6.2.4-6 of the DCD. The applicable design elements, therefore, are not changed by the license amendment request.[45] The original sixty-four igniters were located according to these criteria, and the two proposed igniters will conform to the same criteria. Moreover, as the Board found, BREDL did not provide any reason why the proposed new hydrogen igniters would pose a unique risk that the original igniters did not.

BREDL has not demonstrated any error in the Board's analysis of this issue. Because the criteria for placing igniters were established in the certified design, BREDL's challenge to the igniters' placement must focus on whether the proposed igniters satisfy those criteria. As the Board found, BREDL did not claim that the two new igniters would not be as close to the source as feasible. Instead, BREDL argued that placing hydrogen igniters close to sources of hydrogen is potentially hazardous.[46] Requiring Southern to perform additional analyses, as BREDL seeks, would effectively impose new requirements on the

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nonetheless have reviewed the transcript in its entirety and find no impropriety on the part of the Board. In particular, in the transcript excerpt BREDL cites, the Board appears to be trying to elicit from BREDL information supporting BREDL's contention — and particularly what type of analysis BREDL claimed would be required. The Board has reasonable authority to regulate the conduct of its proceedings; in this case, the Board sought to understand clearly the concerns underlying BREDL's contention, a proper inquiry in the context of contention admissibility determinations.

[42] Appeal at 3.

[43] LBP-16-10, 84 NRC at 37, 40-41.

[44] *See* 10 C.F.R. § 52.83(a) (where an application for a combined license references a certified design, the scope of matters resolved for the subsequent combined license is governed by the relevant provisions addressing finality, including 10 C.F.R. §§ 52.39, 52.63, 52.98, 52.145, and 52.171).

[45] LBP-16-10, 84 NRC at 39 (citing LAR-15-003, encl. 3, at 11).

[46] *See, e.g.,* Petition at 8 ("the proposed solution introduces a new threat . . . by placing Vogtle Units 3 and 4 hydrogen igniters possibly near the location of excess concentrations of hydrogen"), 9 ("Experience in Japan is illustrative of the unanticipated problems created by . . . placing hydrogen igniters near a source of hydrogen[.]").

certified AP1000 design.[47] Thus, the challenge is barred, and BREDL has not demonstrated that the Board erred in so finding.[48]

B. Southern's Use of "Engineering Judgment"

BREDL next reiterates its argument before the Board that 10 C.F.R. § 50.44(c)(5) requires Southern to perform an "analysis that demonstrates containment structural integrity" before adding two new igniters to its hydrogen control system. It argues that the Board's ruling has allowed Southern to instead substitute "engineering judgment" for that requirement.

The Board found that the location of the igniters was not based only on "engineering judgment." The AP1000 DCD analyzed the placement of the hydrogen igniters. As the Board explained, the requirements of 10 C.F.R. § 50.44 and GDC 41 were met in the design certification.[49] The AP1000 DCD requires the igniters to be placed as close to the hydrogen source as feasible, and BREDL did not argue that the igniters could have been placed closer to the hydrogen source.[50] BREDL fails to address the Board's explanation of why a challenge to the hydrogen igniter location criteria is outside the scope of the proceeding.[51] BREDL likewise does not address the Board's determination that the engineering analyses required with respect to combustible gas control were performed at the certified design stage.[52]

And as the Staff observes, BREDL has not argued that the igniters can be placed closer to the IRWST vents; as such, the Board correctly held that BREDL did not identify a genuine dispute with the license amendment request.[53] Moreover, BREDL's petition does not dispute Southern's determination that hydrogen would be likely to flow through the IRWST roof vents in a beyond design basis event.[54] Therefore, the Board did not err in finding that BREDL's arguments regarding engineering judgment raised issues outside the scope of the license

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[47] *See* LBP-16-10, 84 NRC at 43.

[48] BREDL has not made clear the nature of the analysis that it would have the licensee perform. *See* Petition at 9 (a "root cause analysis"), 10 ("an applicability determination," "safety-security interface evaluation," "construction impacts evaluation," "10 CFR 50.59-like screening evaluation"), 11 (a "gaseous diffusion and flame propagation analysis"); BREDL Reply at 3 and Appeal at 2 (a "structural analysis" pursuant to 10 C.F.R. § 50.44(c)(5)). Nevertheless, BREDL did not present to the Board, or to us, a regulatory requirement for any additional analyses.

[49] *See* LBP-16-10, 84 NRC at 38-39, 41.

[50] *Id.* at 42.

[51] *See id.* at 44, 48-49.

[52] *Id.* at 38-39, 48.

[53] Staff Brief at 13; *see* LBP-16-10, 84 NRC at 42-43.

[54] Petition at 8, 9; Gundersen Declaration at 8, 14.

amendment proceeding and failed to show a genuine dispute with the application.

III. CONCLUSION

For the foregoing reasons, we *affirm* the Board's decision in LBP-16-10.
IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 16th day of February 2017.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of **Docket No. 11006235**
(License No. XSNM3771)

EDLOW INTERNATIONAL COMPANY
(Export of 93.20% Enriched Uranium) **February 17, 2017**

NUCLEAR NON-PROLIFERATION ACT: HEARING REQUEST

To obtain a hearing in a nuclear export proceeding, petitioners must successfully explain why a hearing would be in the public interest and how a hearing would assist the Commission in making the required statutory determinations.

NUCLEAR NON-PROLIFERATION ACT: HEARING REQUEST

To obtain a hearing in a nuclear export proceeding, petitioners must show that a hearing would bring new information to light.

NUCLEAR NON-PROLIFERATION ACT: HEARING REQUEST

Even if a petitioner does not satisfy the test for obtaining a hearing, the Commission may still consider the petition as written comments under the non-adjudicatory public participation provision set forth in 10 C.F.R. § 110.81.

ATOMIC ENERGY ACT: HEU EXPORT LICENSE

When uncertainties exist with respect to conversion timetables, the NRC

should monitor conversion efforts to ensure that the export license remains in compliance with AEA section 134.

ATOMIC ENERGY ACT: COMMON DEFENSE AND SECURITY

Absent unusual circumstances, if an export satisfies the Nuclear Non-Proliferation Act's non-proliferation criteria, then that export will likewise satisfy the Atomic Energy Act's inimicality test.

ATOMIC ENERGY ACT: COMMON DEFENSE AND SECURITY

Exporting a multiyear supply of HEU in a single shipment does not raise stockpiling concerns when the amount of material being exported corresponds with the duration of the export license.

MEMORANDUM AND ORDER

I. INTRODUCTION

Dr. Alan J. Kuperman requests leave to intervene on an export license application filed by Edlow International Company.[1] Edlow seeks to export up to 144 kilograms of highly enriched uranium (HEU) in the form of fabricated research reactor fuel elements to Belgium — specifically to the Studiecentrum voor Kernenergie–Centre d'Etude de l'Energie Nucléaire (SCK•CEN)'s Belgian Reactor Number 2 (BR2) over a period ending in 2026. Dr. Kuperman requests an oral hearing, and he asks the NRC to limit both the duration of the export license and the amount of HEU that Edlow may export under its license. For the reasons discussed below, we deny Dr. Kuperman's request for a hearing and direct the Office of International Programs to issue the export license with a modified license termination date in 2023.

II. BACKGROUND

In May 2016, Edlow submitted to the NRC a license application to export

[1] *See* Petition of Alan J. Kuperman for Leave to Intervene and Request for Hearing (August 4, 2016) (ADAMS accession no. ML16235A278) (Petition); Application to Export Enriched Uranium to Belgium, License No. XSNM3771 (May 18, 2016) (ML16158A008) (May Application), *superseded by* Application to Export Enriched Uranium to Belgium, License No. XSNM3771 (July 7, 2016) (ML16193A621) (July Application).

up to 144 kilograms of HEU (enriched up to 93.20%) in the form of fabricated fuel elements to the BR2. The HEU would be fabricated into fuel elements in the United States and then shipped by Edlow to Belgium. Edlow's application explains that it plans to ship this fabricated HEU fuel in increments of less than 5 kilograms of HEU per shipment over a period of six years. Edlow requested a last shipment date of December 31, 2026, and a license termination date of December 31, 2027, to account for "fuel fabrication in support of Belgian Reactor No. 2 inventory and operational requirements."[2] Edlow further explained that conversion of the BR2 to low-enriched uranium fuel is expected in 2026.

On July 7, 2016, Edlow submitted an amended export license application. This July application revised the last shipment date and the proposed license termination date to December 31, 2025, and December 31, 2026, respectively. It also amended Edlow's explanation for these dates by stating that these dates are intended to account for "some margin for unforeseen delays."[3] Finally, the July application removed the reference to conversion. In all other respects, the July application mirrored the May application.

This proposed export would take place under the auspices of the U.S.–Euratom Agreement for Cooperation in the Peaceful Uses of Nuclear Energy, and the European Commission has confirmed that the Belgian recipient (SCK•CEN) is authorized to receive this type of nuclear material. SCK•CEN is a research center that specializes in nuclear science, with a specific focus on improving nuclear safety, managing radioactive waste, and radiation protection.[4] The BR2 is a materials-testing reactor that is used both to conduct research into the safety of existing nuclear power plants and produce medical radioisotopes. It operates according to a scheme of successive irradiation cycles of three to four weeks, with interim maintenance periods. The BR2 requires approximately 30 kilograms of HEU per year to operate; this export, therefore, constitutes a five-year supply of HEU. Taking into account the BR2's current inventory of HEU fuel, this export should allow the BR2 to continue operating until the end of 2023.

SCK•CEN cannot currently use low-enriched uranium (LEU) to fuel the BR2. In 1999, the Belgian Ministry of Foreign Affairs confirmed the intention to convert the BR2 once an alternative fuel source for the BR2 is available. Towards that end, the United States Government continues to work with its European counterparts to create an alternative LEU-molybdenum fuel source. That alternative LEU fuel is currently expected to be qualified by 2026, which would allow the BR2 to convert in the 2028 timeframe. Separate from this potential uranium-molybdenum fuel, it is also possible that the BR2 could convert to us-

[2] May Application at 3.

[3] July Application at 3.

[4] https://www.sckcen.be/en/About/Introduction (last visited February 16, 2017).

ing LEU-silicide fuel in its reactor core. Silicide fuel has already been qualified for use in some European research reactors. But additional testing is necessary before silicide fuel could be qualified for use at the BR2. According to the Executive Branch, that testing would likely take five to seven years.

In accordance with section 126 of the Atomic Energy Act of 1954, as amended (AEA),[5] and 10 C.F.R. § 110.41, the NRC submitted Edlow's applications to the Executive Branch for review. On September 12, 2016, the State Department provided the NRC with the Executive Branch views. The Executive Branch concluded that the proposed export will not be inimical to the common defense and security of the United States, and those views recommended that the NRC make all the required statutory determinations and issue the license to Edlow. The Executive Branch further recommended that the NRC shorten the duration of the requested license to December 31, 2023. And, finally, the letter recommended that the NRC and the Executive Branch consult every three years after license issuance regarding the status of conversion given the uncertainties associated with the conversion timetable. The Executive Branch supplemented its views by an additional letter dated November 14, 2016.

The NRC published a notice of opportunity to request a hearing on Edlow's July application.[6] Dr. Kuperman thereafter filed his intervention petition. Dr. Kuperman seeks, first, an oral hearing on Edlow's export application and, second, that the Commission limit the duration of the license and the amount of HEU that Edlow can export to SCK•CEN.[7] As discussed below, we deny Dr. Kuperman's hearing request. Yet we respond to his views as we consider the statutory and regulatory determinations we must make before issuing this license and treat his views as written comments under 10 C.F.R. § 110.81. We direct the Office of International Programs to issue the license with an expiration date of December 31, 2023. Finally, we request the Executive Branch to provide the NRC with periodic updates regarding the status of conversion.

III. DR. KUPERMAN'S HEARING REQUEST

We turn first to Dr. Kuperman's hearing request.

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[5] 42 U.S.C. § 2155.

[6] Request for a License to Export High-Enriched Uranium, 81 Fed. Reg. 45,311 (July 13, 2016). This notice mistakenly referenced Edlow's May application, and it was subsequently corrected. Request for a License to Export High-Enriched Uranium; Correction, 81 Fed. Reg. 51,945 (August 5, 2016).

[7] Petition at 20-25.

A. Requirements for Obtaining a Hearing on an Export License

As we recently explained, we will allow for public participation in nuclear export licensing proceedings when we find that such participation will be in the public interest and will assist us in making the statutory determinations required by the Atomic Energy Act.[8]

Our regulations further provide that a hearing request must "specify, when a person asserts that his interest may be affected, both the facts pertaining to his interest and how it may be affected."[9] And, "[i]f a hearing request or intervention petition asserts an interest which may be affected, the Commission will consider:

(1) The nature of the alleged interest;

(2) How that issue relates to issuance or denial; and

(3) The possible effect of any order on that interest, including whether the relief requested is within the Commission's authority, and, if so, whether granting relief would redress the alleged injury."[10]

We first consider Dr. Kuperman's assertion of an interest, and then we address whether Dr. Kuperman has shown that a hearing would be in the public interest and would assist us in making the required statutory and regulatory determinations.

B. Analysis of Dr. Kuperman's Hearing Request

Dr. Kuperman's petition addresses his interests.[11] Dr. Kuperman first provides biographical information describing his past and ongoing professional work on non-proliferation issues and his organization's institutional interests in the topic.[12] Dr. Kuperman asserts that these institutional interests related to public information and education programs concerning arms control, proliferation risks,

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[8] *U.S. Department of Energy* (Export of 93.20% Enriched Uranium), CLI-16-15, 84 NRC 53, 56 (2016) (quoting 42 U.S.C. § 2155a); 10 C.F.R. § 110.84(a). Our hearing procedures are generally contained in 10 C.F.R. Part 110, Subparts H, I, and J.

[9] *Id.* § 110.82(b)(4).

[10] *Id.* § 110.84(b). As we have explained, persons without an affected interest are not as likely as persons with an affected interest to contribute to our decisionmaking, show that a hearing would be in the public interest, and assist us in making the statutory determinations. *See U.S. Department of Energy* (Plutonium Export License), CLI-04-17, 59 NRC 357, 367 (2004).

[11] Petition at 3-5.

[12] *Id.* at 3-4. Dr. Kuperman notes that he is the Coordinator of the Nuclear Proliferation Prevention Project, which engages in "research, debate, and public education to ensure that civilian applications of nuclear technology do not foster the spread of nuclear weapons to states or terrorist groups." *Id.* at 3.

nuclear terrorism, and the use of HEU "would be significantly and adversely impaired" unless we hold a "full, open, and independent review" of the issues.[13] Further, Dr. Kuperman identifies previous intervention petitions that he has filed with respect to the BR2 as a means of showing his interest in this application.[14]

Although Dr. Kuperman has articulated the nature of his interests, those interests do not have a sufficient nexus to the proposed export of HEU to Belgium to satisfy the other elements we consider when assessing an asserted interest that may be affected by a proceeding.[15] Specifically, Dr. Kuperman has not shown that issuing this export license will hinder his ability to continue his educational activities and his activities related to arms control, nuclear weapons, proliferation, terrorism, and the use of HEU — that is, he has not shown that his interest will be "affected" by this particular proceeding.[16] Nor has Dr. Kuperman explained how his involvement in previous BR2 licensing actions relates to his interest being affected by *this* licensing proceeding. As a result, we conclude that Dr. Kuperman has not demonstrated that he possesses an interest that may be affected by this proceeding.

Additionally, Dr. Kuperman has not demonstrated that granting the hearing or intervention would be in the public interest and would assist us in making the required statutory and regulatory determinations. We consider both factors when evaluating whether to grant a hearing or intervention.[17] As we recently explained in *U.S. Department of Energy,* to satisfy these factors, a petitioner must show how a hearing would bring new information to light.[18]

Here, although Dr. Kuperman "does not necessarily oppose the granting of the license application *for some portion* of the requested duration and amount of HEU,"[19] he argues that the NRC should not approve a long-term HEU export

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[13] *Id.* at 5.

[14] *Id.* at 4.

[15] *See Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 5 (1994) (explaining that merely asserting an "institutional interest in providing information to the public" is insufficient for showing an affected interest).

[16] *See Transnuclear, Inc.* (Export of 93.3% Enriched Uranium), CLI-00-16, 52 NRC 68, 72 (2000) (noting that the Commission "has long held" that merely asserting a "generalized interest . . . in minimizing the danger from proliferation" is insufficient to show an affected interest in an export proceeding).

[17] 10 C.F.R. § 110.84(a).

[18] *U.S. Department of Energy,* CLI-16-15, 84 NRC at 58 (citing *U.S. Department of Energy,* CLI-04-17, 59 NRC at 369 ("[P]etitioners have already submitted detailed information as to the basis for their position. We do not believe a hearing will result in significant new information that is not already available to and considered by the Commission in making the requisite statutory determinations."); *Transnuclear,* CLI-00-16, 52 NRC at 72 (explaining that nothing in the petitioner's filings indicates it will be able to "present significant information not already available to and considered by the Commission")).

[19] Petition at 20 (emphasis in the original).

license in this proceeding.[20] Dr. Kuperman articulates four reasons to support his position: (1) the Commission cannot ensure that this export license will comply with all statutory requirements during the entire ten-year license term;[21] (2) U.S. law prohibits the Commission from issuing this export license because there is an alternative nuclear fuel that the BR2 can use right now;[22] (3) the Commission should limit the amount of material to be exported because of interception or diversion risks;[23] and (4) the non-proliferation risks outweigh the benefits to the applicant when approving a lengthy, multi-year export license.[24]

Dr. Kuperman argues that "only a public hearing in which issues related to the appropriateness of exporting HEU are fully aired and subjected to public scrutiny can serve to resolve legitimate public questions concerning both the need for granting this license application and the risks associated with such action."[25] Although we acknowledge Dr. Kuperman's extensive knowledge of non-proliferation issues and the points he makes in his petition, we find that he has not adequately identified how a hearing would generate new information for us, let alone how such information would relate to the findings that we must make.[26] Dr. Kuperman's concerns with Edlow's application are substantive. But Dr. Kuperman fails to explain how a hearing would add additional clarity to the cogent points that he already made in his petition.[27]

For these reasons, we deny Dr. Kuperman's intervention petition and hearing request. But even though Dr. Kuperman has not met the threshold for obtaining

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[20] *Id.* at 21.

[21] *Id.* at 13-14, 21.

[22] *Id.* at 14-17, 21.

[23] *Id.* at 6-7, 22.

[24] *Id.* at 19-20, 23.

[25] *Id.* at 24.

[26] *See Westinghouse Electric Corp.* (Nuclear Fuel Export License for Czech Republic — Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 334 (1994) ("Even assuming that the health and safety-related issues raised by Petitioners are matters that the Commission considers in making its export licensing determinations, we cannot conclude from Petitioners' submissions that they would offer anything in a hearing that will generate significant new information or insight about Westinghouse's current fuel export application. On the contrary, the submissions reflect that Petitioners would not offer any information or documentation in a hearing that is not already readily available to the Commission.").

[27] Further, as we previously explained, conducting a hearing on issues "concerning matters about which the Commission already has abundant information and analyses would be contrary to one of the purposes of the NNPA, namely 'that United States government agencies act in a manner which will enhance this nation's reputation as a reliable supplier of nuclear materials to nations which adhere to our nonproliferation standards by acting upon export license applications in a timely fashion.'" *Transnuclear, Inc.* (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 7-8 (1994) (quoting *Westinghouse Electric Corp.* (Export to South Korea), CLI-80-30, 12 NRC 253, 261 (1980).

a hearing, we nonetheless consider his views on Edlow's application as written comments on the application.[28] We turn next to our determination on the application.

IV. STATUTORY AND REGULATORY DETERMINATIONS

Before granting an export license for HEU, we must make the following determinations:

- The proposed export satisfies AEA § 127's non-proliferation criteria;[29]
- If the export is to a non-nuclear weapon state (here, Belgium), the proposed export satisfies AEA § 128's additional non-proliferation criterion;[30]
- If the proposed export is for HEU, the proposed export satisfies the "Schumer Amendment," which is found in AEA § 134;[31]
- Finally, under AEA § 57c.(2), the proposed export will not be "inimical to the common defense and security" of the United States.[32]

We address each in turn.

A. Section 127 Criteria

Section 127 of the AEA lists five applicable non-proliferation criteria that govern exports of special nuclear material.[33] None of these criteria are the subject

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[28] 10 C.F.R. § 110.81(a).

[29] 42 U.S.C. § 2156; *see also* 10 C.F.R. § 110.42(a)(1)-(5).

[30] 42 U.S.C. § 2157; *see also* 10 C.F.R. § 110.42(a)(6).

[31] 42 U.S.C. § 2160d; *see also* 10 C.F.R. § 110.42(a)(9).

[32] 42 U.S.C. § 2077(c)(2); *see also* 10 C.F.R. § 110.42(a)(8). Additionally, our regulations require that we find any export "of more than 0.003 effective kilograms of special nuclear material . . . would be under the terms of an agreement for cooperation." *Id.* § 110.42(a)(7). As noted above, the proposed export would be under the term of the U.S.–Euratom Agreement for Cooperation in the Peaceful Uses of Nuclear Energy.

[33] 42 U.S.C. § 2156; *see also* 10 C.F.R. § 110.42(a)(1)-(5). Section 127 lists a sixth criterion that applies only to exports of nuclear technology and is therefore not applicable to an export of nuclear material. In abbreviated form, the five criteria are:

> (1) IAEA [International Atomic Energy Agency] safeguards will be applied with respect to any such material proposed to be exported;
>
> (2) No material proposed to be exported will be used for any nuclear explosive device or for research on or development of any nuclear explosive device;

(Continued)

of Dr. Kuperman's petition, and on the basis of the Executive Branch's views and the record, we find that these non-proliferation criteria are satisfied.

B. Section 128 Criterion

AEA section 128 requires that any non-nuclear-weapon state recipient have full-scope International Atomic Energy Agency safeguards with respect to all peaceful nuclear activities carried out in that state.[34] Belgium has placed all of its peaceful nuclear activities under International Atomic Energy Agency safeguards; we therefore find that this additional non-proliferation criterion is satisfied.[35]

C. Section 134 Criteria

Section 134a. of the AEA requires the NRC to make the following additional findings before authorizing an application to export HEU:

> (1) there is no alternative nuclear reactor fuel or target enriched in the isotope 235 to a lesser percent than the proposed export, that can be used in the reactor;
>
> (2) the proposed recipient of that uranium has provided assurances that, whenever an alternative nuclear reactor fuel or target can be used in that reactor, it will use that alternative in lieu of highly enriched uranium; and
>
> (3) the United States Government is actively developing an alternative nuclear reactor fuel or target that can be used in that reactor.[36]

The Executive Branch states that these three criteria are satisfied. Argonne

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> (3) Adequate physical security measures will be maintained with respect to such material proposed to be exported and to any special nuclear material used in or produced through the use thereof;
>
> (4) No material proposed to be exported will be re-transferred to the jurisdiction of any other nation or group of nations unless the prior approval of the United States is obtained for such re-transfer;
>
> (5) No material proposed to be exported and no special nuclear material produced through the use of such material will be reprocessed, and no irradiated fuel elements containing such material removed from a reactor shall be altered in form or content, unless the prior approval of the United States is obtained.

[34] 42 U.S.C. § 2157; *see also* 10 C.F.R. § 110.42(a)(6).

[35] *See* https://www.iaea.org/sites/default/files/16/10/sg_agreements_comprehensive_status_list.pdf (last visited February 16, 2017).

[36] 42 U.S.C. § 2160d; *see also* 10 C.F.R. § 110.42(a)(9).

National Laboratory has confirmed that there is no low-enriched uranium fuel currently available that can be used in the BR2 and, further, that the BR2 intends to convert once LEU fuel can be used. The National Nuclear Security Administration is currently cooperating with its European counterparts to develop LEU fuel for this reactor. This cooperation takes the form of the "HERACLES" consortium, which is working to develop high-density, LEU molybdenum fuel.[37] This molybdenum fuel should be qualified by 2026, which would allow for the BR2's conversion around 2028.

Dr. Kuperman's petition focuses primarily on section 134a.'s first criterion. He argues that there is already an alternative fuel source — LEU silicide fuel — that can be used in the BR2.[38] Dr. Kuperman states that this fuel has replaced HEU fuel in many reactors around the world, including the Petten Reactor in the Netherlands, which he argues is comparable to the BR2.[39] He therefore argues that the NRC cannot make the requisite statutory finding and that the NRC cannot authorize this export until it receives assurances from SCK•CEN that it is converting to LEU silicide fuel.[40]

If correct, Dr. Kuperman's point that SCK•CEN could already convert to LEU silicide fuel would raise significant questions under section 134. But the Executive Branch's views provide additional clarification on this point. Specifically, the letter notes that no LEU silicide fuel assembly has been qualified to deal with the reactor conditions that are experienced at the BR2. The BR2's core geometry differs in many significant respects from the now-converted Petten reactor's core. The BR2 has a higher operating power, a different fuel assembly design, and a smaller number of fuel assemblies in its core — this results in a peak heat flux that is almost twice as high as the heat flux experienced in the Petten reactor. Existing LEU silicide fuel cannot guarantee that the BR2 would be able to maintain fuel integrity at this higher peak heat flux. To qualify LEU silicide fuel for use in the BR2, the international community would need to undertake additional testing and experiments. According to the Executive Branch, such testing would likely take at least five to seven years. Dr. Kuperman's view, therefore, that LEU silicide fuel is *already* qualified for use at the BR2 is not supported by the record before us. Accordingly, we are not persuaded that this proposed export would violate the first criterion of section 134a.[41]

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[37] The BR2's operator — SCK•CEN — is a key member of the HERACLES group. This provides additional support for the expectation that the proposed recipient of the HEU will convert when the LEU molybdenum fuel is qualified for use.

[38] Petition at 14.

[39] *Id.*

[40] *Id.* at 16-17. Dr. Kuperman states that conversion to LEU silicide fuel should take approximately three years.

[41] 42 U.S.C. § 2160d.

Dr. Kuperman, however, raises an additional issue for our consideration. He offers the broader point that "it is impossible" for the NRC to know if the Schumer Amendment will remain satisfied during the approximately ten-year duration of the proposed license.[42] For instance, Dr. Kuperman alludes to the possibility of an alternative, low-enriched fuel source becoming qualified before the ten-year license terminates.[43] To this end, Dr. Kuperman argues that the duration of the export license should — at a minimum — match the quantity of HEU fuel to be exported (that is, a five-year supply of HEU should have a five-year license duration).[44] He ultimately identifies three years as a reasonable license duration for this proposed export license.[45]

Assuming *arguendo* that the Schumer Amendment requires us to determine that all three criteria will be met during the entire license term, as Dr. Kuperman suggests, we need not resolve whether a ten-year HEU export license would necessarily violate the Schumer Amendment. Based on the circumstances presented by this case, the Executive Branch recommended shortening the duration of the requested license to December 31, 2023, so that the duration of the license roughly corresponds to the amount of material currently projected to meet operational needs.[46] We agree that this is a sensible approach. As noted above, there are two potential pathways to conversion for the BR2. The first is LEU molybdenum fuel, which could allow for the BR2's conversion around 2028. The second is LEU silicide fuel, which could allow for the BR2's conversion around 2022-2023. Shortening the license duration, therefore, allows us to increase our confidence that the Schumer Amendment criteria will remain satisfied through the entire license term because the BR2 will not be able to convert to LEU fuel until at least 2022.[47]

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[42] Petition at 14.

[43] *Id.* (noting that the Commission cannot "predict the future of European development of alternative nuclear reactor fuel.").

[44] *Id.* at 18-19.

[45] *Id.* at 17.

[46] Once shortened, the license duration would be six years and ten months, from March 1, 2017, until December 31, 2023, with the amount of material to be exported constituting approximately a five-year supply. This difference in time largely results from the fact that this HEU is being fabricated by a new fuel fabricator in the United States. The Executive Branch noted that fuel usage during the first year of the export license will likely be only a fraction of a full year's supply, as the focus during that initial year will be testing the fabricated fuel. It also accommodates the possible scenario of reduced annual fuel consumption.

[47] On January 2, 2017, Dr. Kuperman submitted a transcript from an October 29, 2016, session of the Belgian Chamber of Representatives, Committee on the Interior, General Affairs, and the Civil Service. Letter from Dr. Alan J. Kuperman, Nuclear Proliferation Prevention Project, to the Secretary of the NRC (ML17005A215) (the legislative session that Dr. Kuperman provided was in

(Continued)

Further, given the uncertainties surrounding the two potential pathways to conversion, we request that the Executive Branch provide us with periodic updates detailing the status of the BR2's conversion efforts. We request that a status update be provided to the NRC at least once every three years and that the update discuss the status of conversion, LEU qualification efforts, fuel consumption rates at the BR2, and whether the projections of the BR2's needs for HEU have changed.[48]

Finally, Dr. Kuperman argues that authorizing this export license in full would undermine the general policy underlying the Schumer Amendment by exacerbating the risk that European reactors might delay conversion.[49] We disagree. This proposed export will not provide a disincentive for conversion efforts. As we recently observed, the Department of Energy and its European partners are fully committed to conversion and reducing HEU use in Europe.[50] The Euratom Supply Agency has already committed to return to the United States or downblend a quantity of excess HEU that is comparable to the amount of HEU requested by the BR2. From an HEU-minimization standpoint, therefore, this proposed export is entirely consistent with the Schumer Amendment's objective in reducing HEU use overseas.

In sum, we find that this proposed export satisfies the section 134 licensing criteria, subject to a license-termination date of December 31, 2023, instead of the requested date of December 31, 2026. Further, to facilitate our ongoing monitoring of the BR2's conversion efforts, we request the Executive Branch to provide status updates at least once every three years.

D. Noninimicality Finding

Finally, to issue a license, we must determine under section 57c.(2) of the AEA that the proposed export will not be "inimical to the common defense and security" of the United States.[51] Here, Dr. Kuperman raises two arguments that suggest inimicality concerns with this proposed export. First, he asserts that ap-

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French — an English translation can be found at ML17011A054). During this session, a Belgian Member of Parliament asked Belgium's Minister of Interior and Security about the status of the BR2's conversion efforts. That minister replied that conversion cannot occur until "at least" 2022. He further reiterated that it "is not possible" to convert the BR2 before 2022.

[48] We therefore expect to receive at least two status updates from the Executive Branch before the expiration of Edlow's export license. This approach is consistent with past practice. *See Transnuclear,* CLI-00-16, 52 NRC at 73-76.

[49] Petition at 19, 22. Dr. Kuperman raised a similar argument in *U.S. Department of Energy,* CLI-16-15, 84 NRC at 61.

[50] *U.S. Department of Energy,* CLI-16-15, 84 NRC at 62.

[51] 42 U.S.C. § 2077(c)(2); *see also* 10 C.F.R. § 110.42(a)(8).

proval of the pending application could lead to an increased risk of interception by rogue actors.[52] Second, he maintains that this export could lead to a stockpile of HEU abroad, and that the non-proliferation risks associated with increasing amounts of HEU in international transport outweigh any benefit to the applicant and are otherwise contrary to longstanding U.S. non-proliferation objectives.[53]

The Atomic Energy Act's inimicality test pre-dates the enactment of the Nuclear Non-Proliferation Act (NNPA). As explained in the NNPA's legislative history, the addition of specific export licensing criteria did not replace or render obsolete the pre-existing inimicality test.[54] Yet the NNPA's drafters noted that "in the absence of unusual circumstances," if a proposed export satisfies the NNPA's non-proliferation criteria, then it would likewise satisfy "the common defense and security standard."[55] In *Natural Resources Defense Council, Inc. v. NRC,* Judge Wilkey noted this legislative history and explained that the Commission generally "need not look beyond the nonproliferation safeguards in determining whether the common defense and security standard is met."[56] Finally, when determining whether any "unusual circumstances" exist with respect to a proposed export, we give "great weight" to the Executive Branch's judgments.[57] This approach is woven into the fabric of the NNPA itself, which requires various Executive Branch departments to be closely involved in the export licensing process and gives the President the final word on nuclear exports.[58] Certainly, though, the NNPA and the NRC's regulations also require the NRC to make an independent technical finding that the export meets all applicable requirements.[59] With this background in mind, we turn to Dr. Kuperman's two inimicality concerns.

First, Dr. Kuperman notes media reports that discuss putative terrorist plots that may have targeted SCK•CEN and argues that "this clear and present danger underscores the urgency of minimizing the supply of HEU to the BR-2 reactor, and ending that supply as soon as possible."[60] But Dr. Kuperman does not identify any specific flaws with the BR2's physical protection program or otherwise explain why the existing security measures are incapable of mitigating potential terrorist threats. The Executive Branch has reviewed the BR2's physical security

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[52] Petition at 22.

[53] *Id.* at 22-23.

[54] H.R. Rep. No. 95-587, at 21 (1977).

[55] *Id.*

[56] 647 F.2d 1345, 1363 (D.C. Cir. 1981); *see also U.S. Department of Energy,* CLI-04-17, 59 NRC at 374.

[57] *See U.S. Department of Energy,* CLI-04-17, 59 NRC at 376.

[58] 42 U.S.C. § 2155.

[59] 42 U.S.C. § 2155; 10 C.F.R. § 110.45.

[60] Petition at 6-7.

measures and concluded that those measures will be "adequate" to deter theft, sabotage, or other acts of intentional terrorism. In making this determination, the Department of State consulted with the Department of Defense.[61] We accord significant weight to the Executive Branch's conclusion.[62]

Further — and consistent with the licensing scheme set forth in the NNPA — the NRC Staff independently assessed the security ramifications of this proposed export. Their assessment is consistent with the Executive Branch's judgment that this export would not be inimical to the common defense and security of the United States.

Dr. Kuperman also argues that this proposed export raises stockpiling concerns and is otherwise inconsistent with U.S. non-proliferation policy. Specifically, he argues that failing to limit the duration of the license and the amount of HEU that may be exported "could imply U.S. government approval of either domestic or foreign use of substantial amounts of HEU in research or test reactors in excess of demonstrated need."[63] As noted above, we are limiting the duration of this export license, which addresses Dr. Kuperman's concern that the proposed duration of this export license did not "match" the actual amount of material to be exported.

Further, Dr. Kuperman argues generally that the NRC should only issue export licenses of "short duration." But exports of HEU for use as fuel in research reactors (such as the BR2) tend to be more stable and predictable over longer periods of time compared to exports of HEU for use as targets to produce medical isotopes.[64] This explains why export licenses for targets for medical isotope production tend to be for only a year, while export licenses for research reactor fuel usually cover a multi-year period.

For all of these reasons, we find that the proposed export would not be inimical to the common defense and security of the United States.

V. CONCLUSION

For the reasons stated above, we find that a hearing in this matter would not be in the public interest and would not assist us in making the required statutory and regulatory determinations. We further determine that the proposed export satisfies all applicable export-licensing criteria and that issuing this export license would not be inimical to the common defense and security of the United States. Accordingly, we deny Dr. Kuperman's request for a hearing and petition

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[61] 42 U.S.C. § 2160c.

[62] *U.S. Department of Energy,* CLI-04-17, 59 NRC at 374.

[63] Petition at 22-23.

[64] *U.S. Department of Energy,* CLI-16-15, 84 NRC at 63.

to intervene and direct the Office of International Programs to issue License No. XSNM3771 to Edlow for the export of up to 144 kilograms of highly enriched uranium. We further direct the Office of International Programs to limit the license duration to December 31, 2023, and we request the Executive Branch to provide written status updates regarding the status of conversion, LEU qualification efforts, fuel consumption rates, and projections of the BR2's needs for HEU at least once every three years.

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 17th day of February 2017.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of	**Docket Nos. 50-387** **50-388** **72-28**
SUSQUEHANNA NUCLEAR, LLC **(Susquehanna Steam Electric Station, Units 1 and 2)**	**March 24, 2017**

The Commission affirms a decision denying access to sensitive, unclassified, non-safeguards information (SUNSI), denies a hearing request, and terminates the adjudicatory proceeding.

LICENSE TRANSFER PROCEEDINGS

Persons seeking access to sensitive, unclassified, non-safeguards information (SUNSI) must address why they need the information to meaningfully participate in the proceeding. A request for SUNSI should explain why the publicly available version of the application is insufficient to provide the basis and specificity for a contention. Because we allow access to SUNSI to facilitate meaningful participation in an adjudicatory proceeding, matters raised in a SUNSI access request must bear on the adequacy of the publicly available version of the application.

LICENSE TRANSFER PROCEEDINGS

In license transfer proceedings, SUNSI information usually involves proprietary financial information as opposed to security-related information. Because

financial information determined to be a trade secret or confidential or privileged is withheld from public release based on an applicant's request, in an ordinary case the applicant itself retains the discretion to negotiate with a potential party the conditions and terms of a potential release of sensitive information, under a confidentiality or similar agreement.

LICENSE TRANSFER PROCEEDINGS

In a dispute over access to the sensitive data, where the applicant has not agreed to a release, our role is to balance the applicant's interest in protecting proprietary information with the petitioner's legitimate interest in obtaining information that is necessary for meaningful participation in the adjudicatory proceeding.

LICENSE TRANSFER PROCEEDINGS

A petition to intervene must set forth with specificity the contentions a petitioner seeks to have litigated in a hearing. A petitioner who does not submit at least one contention meeting all contention requirements will not be allowed to participate as a party.

MEMORANDUM AND ORDER

This proceeding concerns the application of Susquehanna Nuclear, LLC, for NRC approval of an indirect transfer of control of its interests in the operating licenses for the Susquehanna Steam Electric Station, Units 1 and 2 (SSES), and in the general license for the station's Independent Spent Fuel Storage Installation (ISFSI). Mr. Sabatini Monatesti has requested a hearing on the license transfer application. Mr. Monatesti also requested access to sensitive, unclassified, non-safeguards information (SUNSI) withheld from the publicly available version of the application. The NRC Staff denied Mr. Monatesti's request for access to the SUNSI, and in LBP-16-12 an Atomic Safety and Licensing Board affirmed the Staff's decision.[1] Mr. Monatesti appeals the Board's decision.

For the reasons outlined below, we affirm the Board's decision on SUNSI access. We also separately consider Mr. Monatesti's request for a hearing.

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[1] Letter from NRC to Sabatini Monatesti, "Request for Access to Sensitive Unclassified Non-Safeguards Information Related to the Application for Indirect Transfer of the Susquehanna Steam Electric Station" (Oct. 20, 2016) (ML16294A385) (Staff Denial); *see* LBP-16-12, 84 NRC 148 (2016).

Because we conclude that Mr. Monatesti has not submitted an admissible contention, we deny his hearing request and terminate this adjudicatory proceeding.

I. BACKGROUND

A. The License Transfer Application

Susquehanna Nuclear owns a ninety-percent ownership interest in SSES and is the sole operator of both units.[2] In an application dated June 29, 2016, Susquehanna Nuclear requested NRC approval of an indirect transfer of control of its interests in operating licenses NPF-14 and NPF-22 for SSES and in the general license for the plant's ISFSI.[3] Susquehanna Nuclear submitted its request pursuant to section 184 of the Atomic Energy Act of 1954, as amended,[4] as well as 10 C.F.R. §§ 50.80(a) and 72.50(a), all of which require prior written NRC consent for a direct or indirect license transfer. The Staff approved the license transfer on November 30, 2016, subject to certain conditions not relevant to our decision today.[5]

The license transfer involves Susquehanna Nuclear's ultimate parent, Talen Energy Corporation (Talen). Prior to the proposed transaction, the three portfolio companies of Riverstone Holdings, LLC (Riverstone) held, in the aggregate, 35% of the outstanding common stock of Talen, with the remaining 65% of Talen's common stock held by public shareholders.[6] The application described a shareholder transaction through which all of the common stock of Talen would become privately owned by the three Riverstone affiliates and

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[2] *See* Letter from Timothy S. Rausch, Susquehanna Nuclear, to NRC Document Control Desk, Request for Order Approving Indirect Transfer of Control (June 29, 2016), at 1. The letter and its enclosures may be found at ADAMS accession nos. ML16181A415, ML16181A417, ML16181A419 (Application). Allegheny Electric Cooperative, Inc. owns the remaining ten percent interest in each unit, and is a non-operating co-licensee. *See id.* Allegheny was not involved in the requested indirect license transfer.

[3] *See id.*; Susquehanna Nuclear, LLC; Susquehanna Steam Electric Station, Units 1 and 2; Consideration of Indirect License Transfer, 81 Fed. Reg. 68,462 (Oct. 4, 2016) (Hearing Notice and SUNSI Order).

[4] *See* 42 U.S.C. § 2234 (providing that "[n]o license granted [under this section] shall be transferred . . . directly, or indirectly, through transfer of control of any license to any person, unless the Commission shall, after securing full information, find that the transfer is in accordance with the provisions of this chapter, and shall give its consent in writing").

[5] *See* Order Approving Indirect Transfer of Facility Operating Licenses, 81 Fed. Reg. 89,514 (Dec. 12, 2016). Consistent with its safety evaluation, the Staff is expected to "promptly issue approval or denial" of license transfer requests, even if an adjudicatory proceeding is pending. *See* 10 C.F.R. § 2.1316. We retain the authority, however, to rescind or condition an approved transfer based on the outcome of any such proceeding.

[6] *See* Application at 2.

therefore "Susquehanna Nuclear would become indirectly controlled by Riverstone."[7] Susquehanna Nuclear states in the application that the purpose of the shareholder transaction is "to take private the ownership of Talen" by replacing the public shareholders of Talen with the Riverstone portfolio companies which, following closing of the shareholder agreement, would own "100% of the outstanding common stock of Talen."[8] Riverstone is described as a private investment firm focused on energy and power, and which is controlled by its two founders, both of whom are U.S. citizens.[9] Following the Staff's approval of the license transfer, the proposed shareholder transaction closed on December 6, 2016.[10]

As part of its application, Susquehanna Nuclear requested that certain information in two attachments to the application, designated Attachments "3P" and "4P," be withheld from public disclosure pursuant to 10 C.F.R. § 2.390(a)(4).[11] Susquehanna Nuclear stated that the attachments contain confidential commercial information the public disclosure of which would "cause substantial harm to the competitive position of Susquehanna Nuclear" because the information has "significant competitive value."[12]

Attachment 3P consists of tables with the projected net income (including estimates of revenues, expenses, and taxes) for each year from 2017 to 2021 for SSES Units 1 and 2, both individually and combined, and sensitivity cases for the income projections. Attachment 3P also provides calculations of projected six-month fixed operating costs for each unit in each of the five years, reflecting costs that would need to be met in the event of a prolonged outage in which Susquehanna Nuclear could not generate revenues. Attachment 4P outlines the capacity factor assumptions for each unit for the years 2017 through 2021.[13]

The Staff reviewed the attachments and determined that they contained pro-

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[7] *See id.,* Cover Letter at 1.

[8] Application at 3.

[9] *Id.* at 2.

[10] Letter from R.J. Franssen, Susquehanna Nuclear Plant Manager, to NRC Document Control Desk, "Additional Information Regarding the Shareholder Transaction" (Dec. 13, 2016), at 1 (ML-16348A332).

[11] *See* Application, Attach. 6, Affidavit of Timothy S. Rausch (Request for Withholding) (June 29, 2016). Section 2.390(a)(4) applies to "[t]rade secrets and commercial or financial information obtained from a person and privileged or confidential." *See also* 10 C.F.R. § 2.390(b)(3)(i)-(ii).

[12] Request for Withholding at 1.

[13] The Staff explains that the capacity factor is the ratio of the "available capacity (the amount of electrical power actually produced by a generating unit)" to the "theoretical capacity (the amount of electrical power that could have theoretically have been produced if the generating unit had operated continuously at full power)." NRC Staff Brief in Opposition to the Appeal of LBP-16-12 (Dec. 23, 2016), at 3 n.10 (Staff Brief).

prietary commercial information.[14] The Staff therefore released publicly only the redacted, non-proprietary versions of the two attachments, which Susquehanna Nuclear also had provided to the NRC. These non-proprietary versions were designated as Attachments 3NP and 4NP, respectively.[15] The remainder of the Susquehanna Nuclear license transfer application did not contain proprietary material and therefore was made available to the public in full. Relevant here, no redactions were made to the sections addressing decommissioning funding assurance.

B. Mr. Monatesti's Request for Access to SUNSI

A request for a hearing and petition to intervene must set forth the specific contentions that the petitioner seeks to have litigated. The *Federal Register* notice of opportunity to request a hearing on the license transfer application detailed the requirements for an admissible contention. In the event that a petitioner required SUNSI to formulate a contention, the notice also included an NRC order imposing procedures for requesting access to the SUNSI. The SUNSI Order directed that requests for SUNSI access be submitted no later than ten days following the notice's publication, effectively by October 14, 2016, absent a showing of good cause. Persons seeking SUNSI access had to address why they needed the information to meaningfully participate in the adjudicatory proceeding.[16] In particular, the order required a request for SUNSI to "explain why publicly available versions" of the application would be insufficient to provide the basis and specificity for a contention.[17] And to assure that SUNSI would not be released to individuals who lack standing to intervene, the order directed the requester to describe the "particularized interest that could be harmed" by the licensing action at issue.[18]

By e-mail dated October 11, 2016, Mr. Monatesti submitted a letter entitled "Request for Hearing and Information — License Transfer," in which he requested first, a hearing to challenge the proposed license transfer, and second,

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[14] *See* Letter from Tanya E. Hood, NRC, to Timothy S. Rausch, Susquehanna Nuclear, "Request for Withholding Information from Public Disclosure for Susquehanna Steam Electric Station, Units 1 and 2" (Aug. 26, 2016) (ML16215A008).

[15] The redacted versions identify all titles — including all row and column headings — in the tables contained in the attachments. They therefore identify all of the categories of financial information that Susquehanna Nuclear provided in the tables but leave blank the entries in the table cells.

[16] Hearing Notice and SUNSI Order, 81 Fed. Reg. at 68,465.

[17] *See id.*

[18] *See id.*

"access to sensitive business documents filed by Talen Energy."[19] The NRC's Office of the Secretary acknowledged Mr. Monatesti's SUNSI access request and informed him that the request was under review. The office additionally reminded him of requirements outlined in the notice, specifically that any hearing request would need to be filed through the NRC's Electronic Information Exchange (EIE), that he needed to obtain a digital certificate to access the EIE, and that the deadline for filing a hearing request was October 24, 2016.[20] Mr. Monatesti responded in an e-mail dated October 17, 2016, indicating that he planned to request a certificate, and without elaboration additionally listing various bulleted questions, introduced only by the following statement: "I can share with you a few areas of investigation."[21]

On October 20, 2016, the Staff denied Mr. Monatesti's request for SUNSI on two independent grounds. First, the Staff found no reasonable basis to conclude that Mr. Monatesti was likely to establish standing to intervene.[22] The Staff stated that Mr. Monatesti appeared to rely for standing only on his assertion that he resides two miles from the facility but that under NRC case law unless an application poses an "obvious potential for offsite [radiological consequences]," mere proximity to a site is insufficient to give "rise to a presumption of standing."[23] The Staff went on to state that "there is no obvious potential for offsite radiological consequences from the proposed . . . license transfer" and that therefore Mr. Monatesti's "assertion of . . . proximity to the site, on its own" was insufficient.[24] Because he had not otherwise traced how the proposed transfer could result in an increased risk of radiological harm to him, the Staff concluded that he had not shown a likelihood of establishing standing.

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[19] *See* Request for Hearing and Information — License Transfer (Oct. 11, 2016) (ML16312A431) (Access Request). Given the number of submissions by Mr. Monatesti, to avoid any confusion about which filing is being referenced we have taken the approach, used by the Board in LBP-16-12, to provide an ADAMS accession number as a reference for each filing. We note additionally, however, that all of Mr. Monatesti's submissions filed prior to the establishment of the Board (as well as responses to Mr. Monatesti by the NRC's Office of the Secretary) can be accessed together as a package attached to the referral memorandum by the Secretary. *See* Memorandum from Annette L. Vietti-Cook, Secretary of the Commission, to E. Roy Hawkens, Chief Judge, Atomic Safety and Licensing Board Panel (Oct. 25, 2016) (ML16299A438) (Referral Memorandum).

[20] *See* E-mail from Office of the Secretary (Hearing Docket) to Sabatini Monatesti (Oct. 17, 2016) (Hearing Docket E-Mail, October 17); E-mail from Office of the Secretary (Hearing Docket) to Sabatini Monatesti (Oct. 12, 2016) (Hearing Docket E-mail, October 12), both found at ML16312-A432.

[21] *See* E-mail from Sabatini Monatesti to NRC Hearing Docket (Oct. 17, 2016), at 1 (ML16312-A432). This e-mail did not address the application or Mr. Monatesti's SUNSI access request.

[22] *See* Staff Denial at 4-6.

[23] *See id.* at 5 (quoting *Exelon Generation Co., LLC and PSEG Nuclear, LLC* (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 580-81 (2005)).

[24] *See id.* at 5-6.

Second, the Staff found that Mr. Monatesti had not established a legitimate need for the information redacted from attachments 3P and 4P. In particular, the Staff found that Mr. Monatesti's SUNSI access request had not made "any arguments that are related to the redacted financial information."[25]

The Staff went on to note that while Mr. Monatesti's SUNSI access request raised concerns about the adequacy of decommissioning funding, the decommissioning funding information in the application contained no SUNSI and no redactions. The Staff moreover stressed that according to the application the station's "decommissioning trust funds are prepaid."[26] In short, the Staff found that Mr. Monatesti had not demonstrated a need for the SUNSI financial data redacted from the license transfer application.

Mr. Monatesti appealed the Staff's denial of his access request and a Board was established to rule on the appeal.[27] The Board's decision in LBP-16-12 addresses Mr. Monatesti's appeal and additional documents that he subsequently filed before the Board.[28]

In LBP-16-12, the Board affirmed the Staff's denial of SUNSI access. The Board agreed that Mr. Monatesti had not shown a need for the redacted information. In the Board's words, Mr. Monatesti had not "connected his concerns with any specificity to the redacted information" and therefore had not "explained

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[25] *See id.* at 6.

[26] *See id.*

[27] Establishment of Atomic Safety and Licensing Board, 81 Fed. Reg. 75,860 (Nov. 1, 2016).

[28] *See* LBP-16-12, 84 NRC at 153, 156-57 & n.33-36. On October 24, 2016, Mr. Monatesti filed two e-mails titled as challenges to the Staff's SUNSI access decision. *See* E-mail from Sabatini Monatesti to Hearing Docket, with attachment titled "Health and Safety Review — Susquehanna Site" (Oct. 24, 2016) (First October 24 E-mail) (ML16312A435); E-mail from Sabatini Monatesti to Hearing Docket (Oct. 24, 2016) (Second October 24 E-Mail) (ML16312A436).

Mr. Monatesti filed several additional items before the Board. First, Mr. Monatesti sent an e-mail to the Board and parties, with an attached document titled "Talen Energy Corp. — Riverstone Holdings, LLC — Transfer Order 10 CFR 50.80." *See* E-Mail from Sabatini Monatesti to Hearing Docket, Licensing Board, and Other Parties (Nov. 1, 2016) (November 1, 2016 E-Mail) (ML16312A437). The Board permitted Susquehanna Nuclear and the Staff to respond to this filing. *See* Order (On Communication Received and Providing Opportunity to Respond) (Nov. 1, 2016) (unpublished) (ML16306A452); NRC Staff Reply to Additional Information Filed by Mr. Monatesti (Nov. 7, 2016).

Second, Mr. Monatesti filed a letter with an attached document consisting of a table titled "Vulnerability-Threat Matrix." *See* Letter from Sabatini Monatesti to the Administrative Judges (Nov. 3, 2016) (ML16308A165) (November 3 Letter). Third, Mr. Monatesti filed a letter in reply to Susquehanna Nuclear. *See* Letter from Sabatini Monatesti to the Administrative Judges (Nov. 4, 2016) (ML16309A341). And fourth, Mr. Monatesti submitted an apparent reply to the Staff. *See* Letter from Sabatini Monatesti to Jeremy L. Wachutka, NRC, "Jeremy L. Wachutka, Counsel for NRC Staff — Reference Letter: November 21, 2016" (Nov. 21, 2016), with attachments (ML16326A359) (November 21 Letter). Because it was filed the day the Board issued its decision, the Board did not review this filing, but we considered it as part of our review.

how the redacted information would be of use to him."[29] As the Board further described, the publicly available versions of attachments 3NP and 4NP clearly identified the specific nature of any data that had been withheld, yet Mr. Monatesti had not tied his concerns to the SUNSI.[30] The Board moreover found that his concerns included matters beyond the scope of a license transfer proceeding.[31] In short, the Board concluded that Mr. Monatesti had not explained why he needed the redacted information to meaningfully participate in the license transfer proceeding, and therefore had not established a "legitimate need for SUNSI."[32] The Board did not reach the question of whether Mr. Monatesti had shown a likelihood to establish standing.[33] Mr. Monatesti appeals the Board's decision.[34] Both Susquehanna Nuclear and the Staff oppose the appeal.[35]

II. DISCUSSION

This case comes to us in an unusual posture. The Staff here followed its customary procedures for SUNSI access requests, in which it makes the initial determination on information requests. We had anticipated, however, that SUNSI access requests in *license transfer* proceedings would come as an initial matter to us.[36] In license transfer proceedings, we traditionally act as the Presiding Officer, ruling on any hearing requests and associated filings. Delay can be avoided when we are able to consider a related SUNSI access request in the first instance. In any event, Mr. Monatesti's request has received a comprehensive review, beginning with the Staff's initial determination, followed by the Board's *de novo* review, and now our own review on appeal.

We consider the Board's decision on the access request under a *de novo*

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[29] LBP-16-12, 84 NRC at 162.

[30] The listing for plant "expenses," for example, included separate subcategories for items such as "taxes," "fuel expense," "depreciation," and "direct O&M [operations and maintenance]." *See id.* at 162-63 (citing Application, Attach. 3NP at 1).

[31] *Id.* at 162-63.

[32] *Id.* at 163.

[33] *Id.* at 158-61.

[34] *See* Letter of Appeal Regarding November 21, 2016 Order (Dec. 2, 2016) (ML16337A238) (Appeal).

[35] *See* Susquehanna Nuclear's Brief in Opposition to Mr. Sabatini's Appeal of Memorandum and Order (LBP-16-12) Affirming Denial of Access to SUNSI (Dec. 27, 2016) (Susquehanna Nuclear Brief); Staff Brief.

[36] *See, e.g.,* Final Rule, Interlocutory Review of Rulings on Requests by Potential Parties for Access to Sensitive Unclassified Non-Safeguards Information and Safeguards Information, 73 Fed. Reg. 12,627-28 & n.3 (Mar. 10, 2008).

standard.[37] And because we normally would have conducted the initial review of the SUNSI access request, our decision today evaluates Mr. Monatesti's access request as if we had received it for review at the outset.

In license transfer proceedings, SUNSI information generally involves proprietary financial information as opposed to security-related information. Because financial information determined to be a trade secret or confidential or privileged (pursuant to 10 C.F.R. § 2.390(b)(4)) is withheld from public release based on an applicant's request, in an ordinary license transfer case the applicant itself retains the discretion to negotiate with a potential party the conditions and terms of a potential release of sensitive information, under a confidentiality or similar agreement.

Here, this case comes to us in the posture of a dispute over access to the sensitive data — where the applicant has not agreed to a release. Our role in this circumstance is to balance the applicant's interest in protecting proprietary information with the petitioner's legitimate interest in obtaining information that is necessary to allow for meaningful participation in the adjudicatory proceeding.[38] We therefore look to whether the petitioner has satisfied the threshold showing outlined in the SUNSI Order.

Under the SUNSI Order, requests for information must explain why the publicly available information in the application "would not be sufficient to provide the basis and specificity" for a contention challenging the application.[39] While this is not a demanding standard, it does require a potential party to be familiar with the application, to articulate concerns that directly relate to the application, and to explain why having access to the information redacted from the application is necessary to either formulate or buttress a contention (or otherwise determine that a contention is unwarranted). Because we allow access to SUNSI to facilitate meaningful participation in an adjudicatory proceeding, matters raised in a SUNSI request must bear on the adequacy of the license transfer application.

Before turning to Mr. Monatesti's claims, a few comments on timeliness are in order. Both Susquehanna Nuclear and the Staff argue that Mr. Monatesti raised numerous untimely arguments before the Board and now before us.[40] We agree. The Staff set deadlines in the notice of opportunity for hearing of October 14, 2016, for a SUNSI access request and October 24, 2016, for a hearing request and petition to intervene. The SUNSI Order made clear that any access request submitted after the deadline would "not be considered absent

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[37] *See South Texas Project Nuclear Operating Co.* (South Texas Project, Units 3 and 4), CLI-10-24, 72 NRC 451, 461 (2010).

[38] *See* 10 C.F.R. § 2.390(b)(2).

[39] *See* Hearing Notice and SUNSI Order, 81 Fed. Reg. at 68,465.

[40] *See* Susquehanna Nuclear Brief at 6-11, 18-21; Staff Brief at 11-14, 20.

a showing of good cause for the late filing, addressing why the request could not have been filed earlier."[41] A similar "good cause" showing requirement applied to hearing requests filed after the deadline.

Mr. Monatesti timely filed a request for SUNSI access on October 11, 2016. But in an apparent effort to supplement his request, he went on to file a number of other e-mails, letters, and documents.[42] Many of these filings raised entirely new claims and arguments. None, however, articulated good cause for late filing. None explained, for example, why the additional arguments could not have been included in the initial October 11, 2016 access request.

And while Mr. Monatesti has stated that he had difficulties obtaining access to the NRC's electronic docketing system (the EIE), lack of access to the EIE had no bearing on his request for SUNSI. The SUNSI Order directed potential parties to submit an access request by mail or e-mail, and he properly sent his original access request to the Secretary by e-mail. Any delays in obtaining access to the NRC's EIE system did not restrict Mr. Monatesti's ability to present fully, in the original access request, his grounds for seeking the SUNSI information.[43] While we understand that it can be difficult for a *pro se* petitioner to learn our adjudicatory process, participation in our proceedings demands a regard for our procedural rules and standards.[44] We therefore consider new SUNSI access claims raised after October 11, 2016, to be untimely.

Notwithstanding our conclusion on timeliness, as a matter of discretion we took into account all of Mr. Monatesti's submissions, up to and including the December 30, 2016 filing. The Board in reaching its decision considered every filing before it, regardless of timeliness, and we have done the same. Even in light of all filings we reach the same conclusions. None of Mr. Monatesti's many arguments demonstrate a need for the redacted information or present a

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[41] Hearing Notice and SUNSI Order, 81 Fed. Reg. at 68,465.

[42] In contravention of our timeliness rules, filings continued through the end of last year. *See, e.g.,* "Letter of Concern Regarding Due Process" (Dec. 30, 2016).

[43] Nor would preparation of an access request typically require an extensive review of materials outside of the license transfer application. After the deadlines for access requests and hearing requests had passed, Mr. Monatesti advised the Board that he needed a minimum of 90 days to review and analyze a number of items, including materials filed with the Securities and Exchange Commission and the Federal Energy Regulatory Commission. *See* November 1, 2016 E-Mail, Attach. at 5. He also requested that the license transfer be "tabled pending detailed review of the issues and concerns raised by me and others." *See id.* at 1. While Mr. Monatesti repeats neither request on appeal, to the extent that either might be understood to be pending, we deny them as moot. *See also* 10 C.F.R. § 2.1327 (outlining the standards — which Mr. Monatesti's request did not address and on its face did not meet — for requests for a stay of the effectiveness of Staff action on a license transfer application).

[44] *See USEC Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 456 (2006) ("those participating in our proceeding must be prepared to expend the necessary effort").

genuine, material dispute with the license transfer application. We first address in detail Mr. Monatesti's access request and then turn to his arguments on appeal.

A. October 11, 2016 Access Request

Mr. Monatesti provided two specific grounds for seeking access to "sensitive business" information.[45] First, he stated that he needed the information "to discern whether Riverstone Holdings includes provisions and capital available for decommissioning" the Susquehanna plant.[46] But as we outlined earlier and the Board described, the license transfer application sections addressing Susquehanna Nuclear's decommissioning funding contained no redactions. Mr. Monatesti therefore did not need SUNSI to challenge or otherwise address the adequacy of the decommissioning funding information.

Susquehanna Nuclear provides financial assurance for decommissioning funding through the NRC's prepayment method, pursuant to 10 C.F.R. § 50.75(e)(1)(i). The application details, without redaction, the estimated minimum required funding (pursuant to NRC regulations) for decommissioning each reactor unit and for decommissioning the ISFSI. The application also details the current credited value of the Susquehanna decommissioning funds.[47] Mr. Monatesti did not address or challenge any of the decommissioning funding information in the application. Nor did his request for SUNSI tie any concern about decommissioning funding to the redacted portions of the application.

As a second basis for seeking SUNSI access, Mr. Monatesti stated that he "required information regarding [Riverstone's] continued support of Salem Township property and recreational facilities."[48] But any question associated with economic support of property and facilities that are not part of SSES does not fall within the scope of this proceeding and is not linked to the SUNSI.

Mr. Monatesti's October 11, 2016 filing went on to raise additional concerns. Mr. Monatesti highlighted, for example, his concern regarding "a site storage expansion plan," a planned increase to the amount of waste stored in the Susquehanna site's ISFSI.[49] As to this expansion, he argued generally that "there are health and safety issues outstanding."[50] But he did not identify any relationship between this license transfer proceeding and his spent fuel storage concern. In

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[45] Access Request at 1.

[46] *Id.*

[47] Moreover, the license transfer did not alter the decommissioning funding arrangement. The application states that Susquehanna Nuclear's existing decommissioning funding "remains in effect and will be unaffected" by the license transfer. *See* Application at 15.

[48] Access Request at 1.

[49] *Id.* at 2.

[50] *Id.*

fact, denial of the license transfer would not change any authorizations granted or requirements imposed by Susquehanna Nuclear's existing ISFSI general license.[51] Nor did these concerns demonstrate a need for the SUNSI in the license transfer application.[52] If Mr. Monatesti believes that there are ongoing violations of health and safety regulations relating to the ISFSI (or indeed any part of the SSES facility), his avenue for redress is a petition for enforcement action under 10 C.F.R. § 2.206.

As an additional matter, Mr. Monatesti stated that he would like "to know if sufficient trained work force will be available to ensure a successful transfer of responsibilities" and if "staffing adjustments exist in the planning for the transfer and subsequent operation" of the plant.[53] However, he did not address or challenge the license transfer application. Here, the application states that Susquehanna Nuclear will continue in its role as the licensed operator, that none of Susquehanna Nuclear's technical qualifications will be affected, and that the SSES nuclear organization "will continue to have clear and direct lines of responsibility and authority, which will be unaffected" by the license transfer.[54] Susquehanna Nuclear states that there will be no changes made to the reactor units, to their licensing bases, or "to the day-to-day management and operations of the units."[55] The application also states that the license transfer will not reduce any commitment made in the SSES Quality Assurance Program Description.[56] And the application states that the license transfer does not require any change to the management or staffing of the nuclear organization or its procedures.[57]

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[51] *See id.* at 2.

[52] Specifically, Mr. Monatesti seeks an NRC review and public hearing regarding spent fuel storage in the ISFSI. Mr. Monatesti's access request and appeal before us recount that last year he raised his waste storage concern with Pennsylvania Congressman Lou Barletta; Congressman Barletta forwarded the concern to the NRC. *See* Access Request at 2; Appeal at 4, 6; Letter from Rep. Louis J. Barletta, 11th District of Pennsylvania, to NRC, Office of Congressional Affairs (May 23, 2016) (ML16146A153). In response, NRC Staff stated that the ISFSI general license allows the licensee to expand ISFSI storage at the SSES site as long as an NRC-approved cask is used and all applicable NRC regulations are followed. *See* Letter from Victor M. McCree, NRC, to Rep. Louis J. Barletta (July 28, 2016) (ML16203A200). In other words, an expansion already authorized under the terms of the ISFSI general license does not require a public hearing. Mr. Monatesti stated that he "find[s] this NRC position unacceptable," but this claim suggests a disagreement with our regulations, not an issue redressable in this proceeding. *See* 10 C.F.R. § 2.335 (prohibiting challenges to NRC regulations in NRC adjudications absent a waiver); Access Request at 2.

[53] Access Request at 2.

[54] *See id.* at 11.

[55] *See* Application, Cover Letter at 1.

[56] Changes that reduce commitments made in a quality assurance program description must be submitted to the NRC and receive NRC approval prior to implementation. *See* 10 C.F.R. § 50.54(a)(4).

[57] *See* Application at 11. The application made clear, however, that if, prior to or at the closing of

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Mr. Monatesti did not challenge the application or otherwise present a ground for questioning the technical qualifications of Susquehanna Nuclear, which will continue in its role as the licensed operator. Nor did his claims regarding staffing demonstrate a need for the redacted financial data.[58]

Mr. Monatesti in his access request also referred generally to a "loss of $341 Million" in 2015 by Talen, the ultimate parent of Susquehanna Nuclear, and a "continued downturn in energy prices."[59] But he did not explain how this statement bears on the terms in Susquehanna Nuclear's license transfer application or the SUNSI access request. The Board addressed Mr. Monatesti's claims regarding Talen. Citing to a news article that it believed Mr. Monatesti had referenced (regarding potential cuts to Talen's operating and capital expenditures), the Board noted that "Talen Energy has power plants in eight different states and a workforce of some 3000 employees," and its "total operating expenses . . . were $1.5 billion for the first six months of 2016."[60] The Board concluded that Mr. Monatesti had not linked his assertions regarding Talen to an "impact to Susquehanna Nuclear" and this license transfer.[61] We agree.

Mr. Monatesti does not explain, for example, how Talen's reported loss would impact the existing decommissioning funding described in the application or the five-year income projections for the two reactor units. While, as the Board states, Mr. Monatesti "questions the financial stability of Riverstone and Talen," this proceeding focuses on whether Susquehanna Nuclear satisfied all NRC requirements for approval of this license transfer transaction, not on Talen's other operations.[62]

Mr. Monatesti's October 11, 2016 SUNSI access request, taken with his

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the transaction, there were to be a change to a manager or principal officer, Susquehanna Nuclear would notify the NRC. *See* Application at 5, 11. Susquehanna Nuclear did notify the NRC of specific changes to the list of principal officers and managers identified in the application. *See* Letter from Robert J. Franssen, Susquehanna Nuclear, to NRC Document Control Desk (Dec. 13, 2016).

[58] The Susquehanna facility remains subject to routine NRC inspection and oversight, which are available as means to verify the technical qualifications as an ongoing matter.

[59] *See* Access Request at 2.

[60] *See* LBP-12-16, 84 NRC at 162 n.67.

[61] *Id.* (citing and quoting Scott Krauss, *Riverstone Reveals Plans to Cut $100M in Costs at Talen Energy,* The Morning Call (Sept. 29, 2016)). The Board additionally noted that Susquehanna Nuclear, in a reply to Mr. Monatesti, had addressed the Talen net loss in 2015 as "'largely the result of non-cash goodwill and other asset impairment charges, and a one-time charge for the retirement of certain debt securities.'" *See id.* (citing Susquehanna Nuclear's Response Opposing Mr. Sabatini Monatesti's Challenge to the NRC's Denial of His Request for Access to Sensitive Unclassified Non-Safeguards Information (Nov. 3, 2016), at 16 n.13).

[62] *See* LBP-12-16, 84 NRC at 162.

various supplemental filings, did not demonstrate a need for the SUNSI. Nor did his request proffer an admissible contention, as we outline in Section III.

B. Mr. Monatesti's Arguments on Appeal

We gave careful consideration to Mr. Monatesti's appeal. The appeal does not, however, identify any error in the Board's conclusions. Mr. Monatesti does not show, for example, that the Board misunderstood or overlooked claims made in his access request. Nor does he refute any of the grounds that the Board provided in LBP-16-12 for denying the access request.

On appeal, Mr. Monatesti states generally that his earlier filings have described "why the public versions of the information requested would not be sufficient to provide a sound basis for business judgment."[63] But Mr. Monatesti does not demonstrate that he addressed the adequacy of the application, including why the public version was not sufficient to enable him to formulate a specific contention challenging the application. He does not show that he addressed the redactions in the application, demonstrating a legitimate need for that information to raise a meaningful challenge within the scope of this proceeding. Instead, his appeal merely lists and summarizes several of his earlier submissions to the NRC or adds new claims not previously raised.

For example, Mr. Monatesti reiterates his concern over expanded spent fuel storage at the ISFSI.[64] He calls into question the adequacy of local government emergency planning resources and the feasibility of evacuation. He repeats assertions (and lists new assertions) about various ongoing or potential business risks faced by Talen and Riverstone.[65] Regarding these business risks, Mr. Monatesti emphasizes his own analysis, an assessment of "concurrent risk" termed a "Vulnerability Threat Matrix," from which he apparently reached the conclusion — referenced in the appeal — of an estimated "$700 million concurrent risk impact" faced by Talen.[66] These various asserted business risks, however, were not sufficiently tied to Susquehanna Nuclear and the license transfer application.

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[63] Appeal at 5.

[64] *Id.* at 4-6, 8.

[65] *Id.* at 5-6, 9-14.

[66] *See id.* at 6, 8, 10-11. Mr. Monatesti's Vulnerability Threat Matrix, which he filed before the Board, is a chart depicting asserted areas of "vulnerability" and risk. *See* November 3 Letter. Mr. Monatesti claimed that by using his threat matrix risk model he estimates that the "average impact without a viable risk strategy [would be] $700 Million per year." *See* November 21 Letter. But as Susquehanna Nuclear argues, the "area[s] of vulnerability" outlined in the matrix are "vague," "not specific to Susquehanna Nuclear," and largely "raise a whole host of issues — climate change, weather, coal, oil, transmission lines, etc. — that are completely irrelevant to the need" for SUNSI. *See* Susquehanna Nuclear Brief at 20.

Mr. Monatesti also again refers to adequacy of decommissioning funding for SSES. Mr. Monatesti provides his own estimates of the decommissioning costs for the SSES units and adds that he does "not know if these numbers are included in the Riverstone Holdings 5 year projection."[67] It is unclear here if Mr. Monatesti intended to refer to the five-year income projection in the license transfer application (which he has not previously addressed in this proceeding). However, the five-year income projection is a separate matter from decommissioning funding assurance.[68] And Susquehanna Nuclear's description of financial assurance for decommissioning has always been available in full in the public version of the application.

Mr. Monatesti's appeal contains several untimely arguments that the Board did not have the opportunity to consider as well as additional claims improperly raised for the first time on appeal before us.[69] But in any event, none of the new information alters our conclusions on Mr. Monatesti's access request.

Both for the reasons the Board provided in LBP-16-12 and those we outline here, Mr. Monatesti did not demonstrate a legitimate need for the information redacted from the license transfer application. He did not "connect[ ] his concerns with any specificity to the redacted information," as the Board found.[70] We affirm the Board's decision denying access to SUNSI.

III. REQUEST FOR HEARING

Mr. Monatesti's October 11, 2016 access request also requested a hearing. In our capacity as the Presiding Officer in this license transfer proceeding, we therefore address whether Mr. Monatesti otherwise submitted an admissible contention for hearing. We conclude that neither his October 11, 2016 filing

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[67] Appeal at 8.

[68] *Compare, e.g.,* 10 C.F.R. § 50.33(f)(2) (estimates of operating costs for each of five years is part of demonstration of reasonable assurance of financial qualifications to carry out license activities), *with* 10 C.F.R. § 50.75 (describing requirements for showing reasonable assurance that funds will be available for the decommissioning process).

[69] Claims inappropriately raised for the first time on appeal before us include references to: an "$879 million write off" and a potential "cascade failure"; new figures or tables on proposed investment, "day ahead" electricity prices, and "capacity prices for zones"; and three pages of bulleted assertions under the heading of "Concurrent Talen Energy Risk Examples." *See* Appeal at 5-7, 10-14; *see also* Susquehanna Nuclear Brief at 18-21; *USEC,* CLI-06-10, 63 NRC at 468 n.104. Mr. Monatesti also inaccurately suggests that his original October 11, 2016 hearing request included certain claims, requests, and figures not included in that request. *See* Appeal at 6-7.

[70] *See* LBP-16-12, 84 NRC at 162; *see also, e.g., Consumers Energy Co.* (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 413, 415 (2007) (where petitioners' concerns were explicitly tied to the redacted information that they sought).

alone nor as supplemented by his subsequent filings proffered an admissible contention.

A petition to intervene must "set forth with particularity" the contentions a petitioner seeks to have litigated in a hearing.[71] Requirements for an admissible contention are found in 10 C.F.R. § 2.309(f)(1)(i)-(vi) and were described in detail in the notice of opportunity to request a hearing.[72] To be admissible, a contention must (among other things) fall within the scope of the proceeding and be material to the findings that the NRC must make.[73] A contention, therefore, must provide sufficient information to show a genuine dispute with the applicant on a material issue of law or fact. Such information must refer to the "specific portions of the application . . . that the petitioner disputes," with the supporting reasons for each dispute; or, if the petitioner believes that an application fails altogether to contain information required by law, the petitioner must identify each failure, and provide supporting reasons for the petitioner's belief.[74]

A petitioner who does not submit at least one contention meeting all contention requirements will not be allowed to participate as a party. Requests for hearing were due in this matter on October 24, 2016. Mr. Monatesti submitted two e-mails to the NRC on that date, but neither filing proffered a contention or otherwise addressed the contention admissibility requirements.[75] Mr. Monatesti did not submit a particularized contention or address the contention standards in any of his filings before the NRC. And for largely the same reasons already outlined in our discussion of his access request, Mr. Monatesti did not raise a genuine dispute on a material issue of law or fact with the license transfer application. He did not identify a specific portion of the license transfer application that he disputes. His claims either fall beyond the scope of this proceeding or are otherwise insufficiently tied to the license transfer application, as our previous discussion outlined. Even giving generous consideration to all of Mr. Mona-

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[71] 10 C.F.R. § 2.309(f); *see* 10 C.F.R. § 2.1300 (providing that the provisions of 10 C.F.R. Part 2, Subpart M, together with the generally applicable intervention provisions in 10 C.F.R. Part 2, Subpart C, govern adjudicatory proceedings on a license transfer application).

[72] *See* Federal Register Notice, 81 Fed. Reg. at 68,464.

[73] 10 C.F.R. § 2.309(f)(1)(iii)-(iv).

[74] *Id.* § 2.309(f)(1)(vi).

[75] We additionally agree with Susquehanna Nuclear and the Staff that Mr. Monatesti did not ever properly file a hearing request, a significant procedural oversight which in itself is an independent ground for denying his request. Not only the hearing notice, but also the NRC's Office of the Secretary (via e-mail), alerted Mr. Monatesti to the need to file and serve a hearing request through the NRC's electronic filing system. *See* Hearing Docket E-Mail, October 17; Hearing Docket E-Mail, October 12. Even allowing for Mr. Monatesti's technical difficulties in accessing the EIE, Mr. Monatesti at no point filed a hearing request through the EIE, even after he accessed the system. Nor did he request an exemption from the electronic filing requirement, as the hearing notice allowed.

testi's submissions, we do not discern an admissible contention. We therefore deny his request for hearing.[76]

IV. CONCLUSION

For the reasons set forth above, we *affirm* the Board's decision in LBP-16-12, *deny* Mr. Monatesti's request for hearing, and *terminate* this proceeding.

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 24th day of March 2017.

[76] We need not reach the question whether Mr. Monatesti has demonstrated standing.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

Lawrence G. McDade, Chairman
Dr. Michael F. Kennedy
Dr. Richard E. Wardwell

In the Matter of **Docket Nos. 50-247-LR**
50-286-LR
(ASLBP No. 07-858-03-LR-BD01)

ENTERGY NUCLEAR OPERATIONS, INC.
(Indian Point Nuclear Generating
Units 2 and 3) **March 13, 2017**

RULES OF PRACTICE: DISMISSAL OF PROCEEDINGS

LICENSING BOARD(S): DISMISSAL OF PROCEEDINGS

Where the Board has granted the withdrawal of all remaining contentions in a proceeding and there remain no further issues before the Board, the proceeding terminates.

ORDER

(Granting Motion to Dismiss Contentions and to Terminate This Proceeding)

Pending before this Board is a motion jointly filed by the State of New York (New York) and Riverkeeper. Inc. (Riverkeeper) (collectively, Intervenors) seeking to dismiss the remaining contentions and to terminate this proceeding. By granting this motion, we will bring to an end litigation that has been

ongoing for almost 10 years and which raised numerous significant safety and environmental issues.

This proceeding arises out of the April 23, 2007, application of Entergy Nuclear Operations, Inc. (Entergy) to renew its 10 C.F.R. Part 50 operating licenses for Indian Point Nuclear Generating Units 2 and 3 (IP2 and IP3) located in Buchanan, New York.[1] As originally proposed, the renewed licenses would have authorized Entergy to operate IP2 and IP3 for a period of 20 years beyond the period specified in the original operating licenses.[2]

The admitted contentions remaining before this Board, which have been referred to as the Track 2 safety contentions, are, in brief, as follows:

1. Contention NYS-25:[3] Challenges the adequacy of Entergy's aging management program for reactor vessel internals.

2. Consolidated Contention NYS-26B/RK-TC-1B:[4] Challenges the adequacy of Entergy's aging management program for metal fatigue.

3. Consolidated Contention NYS-38/RK-TC-5: Challenges whether the NRC had a sufficient record on which to make a decision about license renewal when certain details of aging management programs were deferred.

I. PROCEDURAL HISTORY

A. Pre-Track 2 Hearing Disposition of Admitted Contentions

The Track 1 contentions were the subject of an evidentiary hearing in Westchester County, New York, October 15-24, 2012.[5] Those contentions were resolved in this Board's first Partial Initial Decision.[6] Subsequent to the issuance of the Partial Initial Decision, six admitted contentions remained before the Board: NYS-39/RK-EC-9/CW-EC-10, CW-SC-4, RK-EC-8, NYS-25, NYS-26B/RK-EC-1B, and NYS-38/RK-EC-5.[7]

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[1] 72 Fed. Reg. 26,850 (May 11, 2007).

[2] *Id.* Pursuant to 10 C.F.R. § 2.109(b), IP2 and IP3 may continue to operate pending this adjudication.

[3] Contentions beginning with "NYS" were submitted by the State of New York.

[4] Contentions beginning with "RK" were submitted by Riverkeeper, Inc. The letters "TC" indicate that the contention was proffered as a technical contention, as opposed to an environmental contention (EC).

[5] 77 Fed. Reg. 36,015, 36,016 (June 15, 2012).

[6] *See* LBP-13-13, 78 NRC 246 (2013). For discussion of those admitted contentions resolved prior to the Track 1 hearing, *see id.* at 268.

[7] *See id.,* app. A.

Consolidated Contention NYS-39/RK-EC-9/CW-EC-10[8] argued that the Final Supplemental Environmental Impact Statement (FSEIS) supporting the license renewal was deficient because it did not include an analysis of the environmental impacts of long-term storage of nuclear waste onsite at Indian Point.[9] Contention CW-SC-4 similarly challenged the application for providing an insufficient analysis of the aging management of spent fuel pools that would be used for onsite storage of nuclear waste.[10]

Prior to the Track 1 hearing, both of these contentions were placed in abeyance at the direction of the Commission.[11] The Commission then adopted the Continued Storage Rule, which codified the NRC's generic determinations regarding the pertinent environmental impacts associated with continued storage of spent nuclear fuel.[12] In a 2014 ruling, the Commission stated that to the extent Contentions CW-SC-4 and NYS-39/RK-EC-9/CW-EC-10 raised issues resolved by the Continued Storage Rule, the Indian Point Board was directed to dismiss them, and if issues raised in those contentions remained unresolved by the Commission's actions, to rule on admissibility of those challenges to license renewal.[13] Following briefing by the participants,[14] the Board dismissed both contentions.[15]

Contention RK-EC-8 challenged the FSEIS as deficient because of inadequate consultation with the National Marine Fisheries Service under the Endangered Species Act.[16] After the NRC Staff issued a new supplement to the FSEIS in 2013, Riverkeeper filed a motion to amend RK-EC-8 based on new information in the supplement,[17] while Entergy filed a motion seeking to use

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[8] Contentions beginning with the letters "CW" were submitted by Hudson River Sloop Clearwater, which is not a party to any of the remaining Track 2 contentions.

[9] LBP-13-13, app. A, 78 NRC at 548.

[10] *Id.,* app. A at 550.

[11] *See* Licensing Board Order (Holding Contentions NYS-39/RK-EC-9/CW-EC-10 and CW-SC-4 in Abeyance) (Aug. 8, 2012) (unpublished) (citing *Calvert Cliffs 3 Nuclear Project, LLC and Unistar Nuclear Operating Services, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 68-69 (2012)).

[12] *See Calvert Cliffs 3 Nuclear Project, LLC and Unistar Nuclear Operating Services, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-14-8, 80 NRC 71, 79-80 (2014).

[13] *Id.*

[14] Licensing Board Order (Requesting Briefs on NYS-39/RK-EC-9/CW-EC-10 and CW-SC-4) (Sept. 17, 2014) (unpublished).

[15] Licensing Board Order (Dismissing Contentions NYS-39/RK-EC-9/CW-EC-10 and CW-SC-4) (Nov. 10, 2014) (unpublished).

[16] LBP-13-13, app. A, 78 NRC at 549. *See also* Riverkeeper Inc. Consolidated Motion for Leave to File a New Contention and New Contention Concerning NRC Staff's Final Supplemental Environmental Impact Statement (Feb. 3, 2011).

[17] Riverkeeper, Inc. Consolidated Motion for Leave to File Amended Contention RK-EC-8A and Amended Contention RK-EC-8A (Aug. 20, 2013).

that same new information to have RK-EC-8 dismissed as moot.[18] The Board denied Riverkeeper's motion and ruled in favor of Entergy, finding RK-EC-8 moot and therefore removing it from consideration in this proceeding.[19]

We also note here the results of several appeals decided by the Commission in this proceeding. The Board granted summary disposition on consolidated Contention NYS-35/36, which concerns the implementation of cost-beneficial severe accident mitigation alternatives (SAMAs), in favor of New York, as discussed in the Track 1 Partial Initial Decision.[20] Entergy and the NRC Staff then appealed to the Commission both the order admitting NYS-35/36 and the order granting summary disposition.[21] The Commission reversed the Board's order and granted summary disposition in favor of the NRC Staff and Entergy, dismissing NYS-35/36.[22] Additionally, the Commission reversed the Board's decision in the Track 1 Partial Initial Decision with respect to Contention NYS-8 (Transformers), overruling in favor of Entergy the Board's factual determination that transformers are a passive component requiring a plan for aging management, and affirmed in part and reversed in part our decision with respect to Contention CW-EC-3A (Environmental Justice), finding in favor of Entergy and the Staff that the emergency planning environmental justice issues raised by Hudson River Sloop Clearwater (Clearwater) were outside the scope of license renewal.[23]

The Commission also took up New York's appeal of Contention NYS-12C concerning SAMA calculations,[24] which the Board resolved in favor of Entergy in the Track 1 Partial Initial Decision,[25] and which the Board also declined to reopen and reconsider.[26] The Commission reversed the Board's decision and directed the Staff to perform further sensitivity analyses related to certain parameters used in the SAMA calculations.[27]

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[18] Entergy Motion to Dismiss Riverkeeper Contention RK-EC-8 (Endangered and Threatened Aquatic Species) as Moot (Jul. 17, 2013).

[19] Licensing Board Order (Denying Riverkeeper's Motion and Granting Entergy's Motion Addressing RK-EC-8A) at 3, 5 (Apr. 2, 2014) (unpublished).

[20] *See* LBP-13-13, 78 NRC at 268-69.

[21] Applicant's Petition for Review of Board Decisions Regarding Contentions NYS-8 (Electrical Transformers), CW-EC-3A (Environmental Justice), and NYS-35/36 (SAMA Cost Estimates) (Feb. 14, 2014) at 43-60; NRC Staff's Petition for Commission Review of LBP-13-13 In Part (Contentions NYS-8 and CW-EC-3A), and LBP-11-17 (Contentions NYS-35/36) (Feb. 14, 2014) at 41-59.

[22] CLI-16-10, 83 NRC 494, 496 (2016).

[23] CLI-15-6, 81 NRC 340, 351-52, 386 (2015).

[24] LBP-08-13, 68 NRC 43, 100 (2008).

[25] *See* LBP-13-13, 78 NRC at 450-74.

[26] Licensing Board Order (Denying New York's Motion to Reopen the Record; Setting Deadline for New or Amended Contention) (Apr. 1, 2014) (unpublished).

[27] CLI-16-7, 83 NRC 293, 323 (2016).

As a result of these actions, three contentions, NYS-25, NYS-26B/RK-TC-1, and NYS-38/RK-TC-5, remained under consideration by the Board. As such, the only intervenors remaining active in the proceeding are New York and Riverkeeper.

B. Track 2 Evidentiary Hearing

In April 2015, the Board issued a Notice of Hearing, which announced that we would begin taking oral testimony on the three Track 2 contentions on November 16, 2015, in Tarrytown, New York.[28] Pursuant to the Board's Revised Scheduling Order, the parties timely filed updated statements of position, testimony, and exhibits in support of the three remaining Track 2 contentions in advance of the hearing. Intervenors' separate submissions were filed in June 2015 and the NRC Staff's and Entergy's in August 2015. Intervenors filed rebuttal testimony and exhibits in September.[29]

The Track 2 hearing was held in Tarrytown, New York, on November 16-19, 2015.[30]

C. Delays in Issuance of Track 2 Partial Initial Decision

On March 29, 2016, Entergy notified the Board that during the scheduled maintenance outage that commenced on March 7, 2016, Entergy conducted visual and ultrasonic testing of the baffle-former assembly bolts in IP2, revealing that approximately 25% of the baffle-former bolts showed signs of degradation.[31] This level of degradation was much higher than the industry-wide 1.5% rate of baffle-former bolt failure to which witnesses had testified.[32] As a result of these observations, on March 30, 2016, the parties filed a Joint Motion asking the Board to defer for thirty-five days the Track 2 hearing schedule, including

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[28] Notice of Hearing (Scheduling Track 2 Hearing) (Apr. 23, 2015) (unpublished).

[29] Licensing Board Revised Scheduling Order (Dec. 9, 2014) (unpublished). New York was granted 8 additional days from the deadline set in the Revised Scheduling Order to file these documents. *See* Licensing Board Order (Granting New York's Motion for an Eight-Day Extension of the Filing Deadline) (May 27, 2015) (unpublished).

[30] 80 Fed. Reg. 60,719 (Oct. 7, 2015).

[31] Letter from Paul M. Bessette, Counsel for Entergy Nuclear Operations, Inc., to ASLB, Re: Licensing Board Notification of Preliminary Indian Point Unit 2 Baffle-Former Assembly Bolt Inspection Findings, at 1-2 (Mar. 29, 2016).

[32] NRC Staff Testimony of Dr. Allen Hiser, Jeffrey Poehler, and Gary Stevens on NYS-25 and NYS-38/RK-TC-5 at 135 (Aug. 10, 2015) (Ex. NRC000197). *See also* Testimony of Entergy Witnesses Nelson F. Azevedo, Robert J. Dolansky, Alan B. Cox, Jack R. Strosnider, Timothy J. Griesbach, Randy G. Lott, and Mark A. Gray Regarding Contention NYS-25 (Embrittlement) at 100 (Aug. 10, 2015) (Ex. ENT000616).

post-hearing filings, evidentiary submissions, and the issuance of the Board's decision.[33] The Board granted that motion on April 1, 2016.[34] The parties then filed two additional Joint Status Reports requesting schedule deferrals as they performed additional analyses,[35] both of which were granted by the Board.[36]

On June 28, 2016, the parties filed a Third Joint Status Report, in which they again asked this Board to delay the Track 2 proceedings to allow the parties to file testimony regarding baffle-former bolt issues.[37] In that report, Entergy informed the Board that it planned to send cracked baffle-former bolts removed from IP2 to a "hot lab" facility for testing.[38] Entergy stated that it planned to have three of these bolts analyzed and expected the results by October 2016.[39] Recognizing the safety significance of these baffle-former bolt issues, the Board reluctantly agreed to delay the Track 2 proceeding and accepted the parties' requested schedule for filing of further testimony and evidence.[40]

On October 14, 2016, Entergy notified the Board that planned hot cell testing of three baffle-former bolts removed from IP2 had been conducted and that, based on those results, it would test five additional bolts with the results of those tests anticipated in November 2016.[41] Intervenors then filed an Unopposed Joint Motion requesting that the Board again delay the filing deadlines for supplemental testimony on baffle-former bolt issues so that Intervenors would be able to consider the results of all testing in their testimony.[42] Reiterating our concern

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[33] Joint Motion for Track 2 Hearing Schedule Deferral at 5 (Mar. 30, 2016).

[34] Licensing Board Order (Adopting Joint Motion for Track 2 Hearing Schedule Deferral) (Apr. 1, 2016) (unpublished).

[35] *See* Joint Status Report Regarding Track 2 Schedule Deferral (May 6, 2016) at 1; Second Joint Status Report Regarding Track 2 Schedule Deferral (June 7, 2016).

[36] *See* Licensing Board Order (Adopting Track 2 Hearing Schedule Deferral at Request of the Parties) (May 10, 2016) (unpublished); Licensing Board Order (Adopting Schedule Deferral at Request of the Parties and Requesting Conference Call Availability) (June 8, 2016) (unpublished).

[37] Third Joint Status Report Regarding Proposed Track 2 Schedule (June 28, 2016).

[38] *Id.* at 3.

[39] *Id.* Entergy suggested that the industry was considering sponsoring the testing of additional bolts, but that the results of those tests would not be available until sometime in 2017. *Id.* at 3-4.

[40] Licensing Board Order (Scheduling of Further Filings on Track 2 Contentions) (July 13, 2016) (unpublished). The schedule for further filings initially required the parties to file Proposed Findings of Fact and Conclusions of Law concurrently with some of the supplemental testimony. *Id.* at 4. Upon joint motion from the parties, the Board altered the deadlines for Proposed Findings of Fact and Conclusions of Law to be filed after all supplemental testimony, providing the parties the ability to consider the supplemental testimony in their Proposed Findings. *See* Licensing Board Order (Granting Joint Motion for Reconsideration) (Aug. 3, 2016).

[41] Letter from Paul M. Bessette, Counsel for Entergy, to ASLB, Re: Licensing Board Notification Regarding Status of Hot Cell Testing of Indian Point Unit 2 Baffle-Former Bolts, at 1 (Oct. 14, 2016).

[42] Unopposed Joint Motion to Extend Track 2 Hearing Schedule Deadlines (Oct. 26, 2016).

about delaying this proceeding, which questions whether Indian Point can operate safely in the period of extended operation (in which both units are already operating), the Board again granted Intervenors' request.[43]

II. MOTION TO DISMISS CONTENTIONS AND TERMINATE THE PROCEEDING

On February 8, 2017, Intervenors filed an unopposed motion stating that they had withdrawn the remaining Track 2 contentions and seeking the dismissal of these contentions without prejudice and the termination of this proceeding.[44] Accompanying this motion was a Declaration from Lisa Kwong (Kwong Declaration), counsel for New York, which included as attachments copies of several filings made by Entergy to the NRC that served as the predicate for Intervenors' motion.[45]

Specifically, Entergy's filings to the Commission amended its License Renewal Application to provide for a truncated period of extended operations for IP2 and IP3 and augmented aging management programs and other safety measures.[46] The NRC Staff and Entergy filed separate Answers on February 21, 2017, supporting Intervenors' motion.[47] Clearwater also stated that they did not oppose Intervenors' motion.[48] While noticed,[49] no entity who participated in this proceeding as an interested governmental body responded to this motion.

In their motion, Intervenors stated that they are satisfied that the filings made by Entergy to the NRC adequately address the safety concerns raised in their Track 2 contentions.[50] As discussed in Intervenors' motion,[51] the filings made

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[43] *See* Licensing Board Order (Granting Unopposed Motion for Extension of Time) (Nov. 2, 2016) (unpublished).

[44] Intervenors' Notice of Withdrawal of Track 2 Contentions and Unopposed Motion to Dismiss Those Contentions and This Proceeding in Its Entirety (Feb. 8, 2017) [hereinafter Motion to Dismiss].

[45] *See* Declaration of Lisa Kwong (Feb. 8, 2017) [hereinafter Kwong Declaration].

[46] *See* Motion to Dismiss at 2-3.

[47] NRC Staff's Answer to Intervenors' Notice of Withdrawal of Track 2 Contentions and Unopposed Motion to Dismiss Those Contentions and This Proceeding in Its Entirety (Feb. 21, 2017) [hereinafter NRC Staff's Answer]; Entergy's Answer in Support of Intervenors' Motion to Dismiss the Pending Track 2 Contentions and Terminate the Proceeding (Feb. 21, 2017) [hereinafter Entergy's Answer].

[48] Kwong Declaration, attach. 7, Hudson River Sloop Clearwater, Inc. Resolution for Action on Indian Point Settlement Agreement (Feb. 8, 2017).

[49] Licensing Board Notice (Opportunity to Comment on Motion to Withdraw) (Feb. 15, 2017) (unpublished).

[50] *See* Motion to Dismiss at 3.

[51] *Id.* at 2-3.

by Entergy, *inter alia,* include the following: (1) a Notification of Permanent Cessation of Power Operations for IP2 and IP3 in 2020 and 2021, respectively;[52] (2) an update to its License Renewal Application that reflects a shortened license renewal term;[53] and (3) updates to its Reactor Vessel Internals Aging Management Program and Inspection Plan,[54] which include "accelerated inspection and replacement of baffle-former bolts at IP2 and IP3 in response to Indian Point and industry operating experience with bolt cracking."[55] Intervenors noted that these amendments are subject to NRC review and approval.[56] Entergy also committed to "permit annual plant inspections by New York State personnel," "perform general inspections of the steam generator channel head and tubesheet region during the IP3 2017 and IP2 2018 refueling outages in accordance with newly-issued NRC guidance," and "expedite the transfer of fuel assemblies from the spent fuel pools to dry cask storage."[57] Based on these commitments, Intervenors state that, in their view, "Entergy has significantly improved the prospects for safe future operation of Indian Point" until "Entergy's early retirement of IP2 . . . and IP3."[58] Both the NRC Staff and Entergy agree that Intervenors' contentions should be dismissed and the proceeding terminated.[59]

III. CONCLUSION

The Board has taken extensive testimony and held an evidentiary hearing on all issues raised by the Track 2 contentions with the exception of extensive baffle-former bolt degradation, which was addressed in the attachments to the

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[52] Kwong Declaration, attach. 5, NL-17-021, Letter from Anthony J. Vitale, Indian Point Site Vice President, to NRC, Notification of Permanent Cessation of Power Operations (Feb. 8, 2017).

[53] *Id.,* attach. 6, NL-17-019, Letter from Anthony J. Vitale, Indian Point Site Vice President, to NRC, Amendment to License Renewal Application — Reflecting Shortened License Renewal Terms for Unit 2 and 3, at 2 (Feb. 8, 2017). While the license terms extend beyond the date of cessation of operations, Intervenors state in their motion that Entergy could only operate Indian Point beyond 2020 and 2021 "in the event that [New York] determines that an emergency exists," but under no circumstances beyond April 2024 for IP2 and April 2025 for IP3. Motion to Dismiss at 2.

[54] *Id.,* attach. 4, NL-17-020, Letter from Anthony J. Vitale, Indian Point Site Vice President, to NRC, Amendment to License Renewal Application — Revisions to Reactor Vessel Internals Aging Management Program and Inspection Plan (Feb. 6, 2017). These revisions include "the addition of new Section 6.2 to incorporate discussion of the recent Unit 2 [operating experience]" and "changes to Entergy's schedule and plans for conducting future [ultrasonic] and visual inspections as well as replacement of baffle-former bolts at IP2 and IP3." *Id.* at 2.

[55] Motion to Dismiss at 2-3.

[56] *Id.* at 10 n.33.

[57] *Id.* at 3.

[58] *Id.* at 16.

[59] *See* NRC Staff's Answer at 1-2; Entergy's Answer at 3-8.

Kwong Declaration. The NRC Staff noted in their Answer that nothing in the amendments filed by Entergy or the representations made by Entergy and Intervenors "should be interpreted as altering or otherwise encumbering the full scope of the Commission's authority over Indian Point."[60] The information contained in the attachments to the Kwong Declaration has been submitted by Entergy to the NRC. The NRC Staff and the Commission have the responsibility to review this material and ensure that IP2 and IP3 can operate safely through the period of extended operation.

Consistent with the guidance provided by *Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-91-13, 34 NRC 185 (1991) and 10 C.F.R. § 2.340(a), we do not see any adverse safety consequences of granting Intervenors' request for dismissal of the remaining contentions, and we see no further role for the Board in this proceeding. Accordingly, the Board *grants* Intervenors' motion, dismisses the three remaining Track 2 contentions without prejudice, and terminates this proceeding.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

Lawrence G. McDade, Chairman
ADMINISTRATIVE JUDGE

Dr. Michael F. Kennedy
ADMINISTRATIVE JUDGE

Dr. Richard E. Wardwell
ADMINISTRATIVE JUDGE

Rockville, Maryland
March 13, 2017

[60] NRC Staff's Answer at 2.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of	**Docket Nos. 50-259** **50-260** **50-296**
TENNESSEE VALLEY AUTHORITY **(Browns Ferry Nuclear Plant** **Units 1, 2, and 3)**	**April 4, 2017**

CHALLENGE TO NRC REGULATIONS

RULE WAIVER

A generic rule may not be challenged in an adjudicatory proceeding absent a waiver. 10 C.F.R. § 2.335(b). The sole ground for a waiver is that special circumstances with respect to the subject matter of a particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule was adopted. The proponent of waiver must demonstrate that these special circumstances are unique to the facility rather than common to a large class of facilities. *See Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560-61 (2005).

SUSPENSION OF PROCEEDING

RULEMAKING PETITIONS

Suspending a license proceeding during the pendency of a rulemaking action is "drastic action," which the Commission will grant only where moving forward with the proceeding would present an "immediate threat[ ] to public health and safety," would be an "obstacle to fair and efficient rulemaking," or would prevent implementation of the contemplated policy or rule change.

DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-14-7, 80 NRC 1, 7 (2014) (quoting *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 158 (2011); *see also Pacific Gas & Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-03-4, 57 NRC 273, 277 (2003).

MEMORANDUM AND ORDER

The Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation (BEST/MATRR) has appealed the Atomic Safety and Licensing Board's decision denying its request for a hearing and a stay in this license amendment proceeding.[1] For the reasons described below, we deny the stay request and affirm the Board's decision.

I. BACKGROUND

This proceeding involves the Tennessee Valley Authority's (TVA) application for a license amendment for an extended power uprate for Browns Ferry Nuclear Plant Units 1, 2, and 3 in Athens, Alabama.[2] The proposed uprate would increase the authorized maximum reactor core power level for each unit from 3458 megawatts thermal (MWt) to 3952 MWt.

Among the supporting documents TVA supplied with its application are analyses of how fuel would react in a loss of coolant accident (LOCA) under increased power conditions.[3] Section 50.46 of our regulations sets specific performance criteria for the emergency core cooling systems of reactors that limit the calculated peak cladding temperature, the extent of cladding oxidation, and

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[1] Appeal of the Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation ("BEST/MATRR") Regarding the Atomic Safety and Licensing Board's Denial of BEST/MATRR's Hearing Request and Petition to Intervene Regarding Tennessee Valley Authority's License Amendment Request for Extended Power Uprates for Browns Ferry Nuclear Plant Units 1, 2, and 3 (Nov. 25, 2016) (Appeal); *see* LBP-16-11, 84 NRC 139 (2016).

[2] *See* Letter from J. W. Shea, Tennessee Valley Authority, to NRC Document Control Desk, Proposed Technical Specifications Change TS-505 — Request for License Amendments — Extended Power Uprate (Sept. 21, 2015) (ADAMS accession no. ML15282A154 (package)).

[3] *See id.,* Attach. 11, ANP-3377NP, Browns Ferry Units 1, 2, and 3 LOCA Break Spectrum Analysis for ATRIUM 10XM Fuel (EPU) (Non-Proprietary) (ML15282A184); *id.,* Attach. 13, ANP-3378NP, Browns Ferry Units 1, 2, and 3 LOCA-ECCS Analysis MAPLHGR Limits for ATRIUM 10XM Fuel (EPU) (Non-Proprietary) (ML15282A185); *id.,* Attach. 15, ANP-3384NP, Browns Ferry Units 1, 2, and 3 LOCA-ECCS Analysis MAPLHGR Limits for ATRIUM-10 Fuel (EPU) (Non-Proprietary) (ML15282A187).

the amount of hydrogen generation following a LOCA.[4] Appendix K to Part 50 requires that "the rate of energy release, hydrogen generation, and cladding oxidation from the metal/water reaction shall be calculated using the Baker-Just equation."[5]

BEST/MATRR filed a petition to intervene, making the overarching argument that the evaluations TVA used to establish the safety of the extended power uprate during a LOCA are non-conservative because the Baker-Just equation is itself non-conservative.[6] As background for its contentions, BEST/MATRR asserted that the Baker-Just equation is "inadequate for use in computer safety models" such as those used in TVA's application.[7] BEST/MATRR provided a detailed discussion of the history of the Baker-Just equation.[8] Specifically, BEST/MATRR argued that the Baker-Just equation under-predicts the rate of energy release, hydrogen generation, and cladding oxidation caused by the metal-water reaction in a LOCA.[9] Therefore, it argued that "the Baker-Just correlation is inadequate for use in computer safety models that simulate LOCAs."[10] BEST/MATRR also referred to PRM-50-93/95, a pending rulemaking petition filed by its declarant, Mr. Mark Leyse, which raises the same challenges to the use of the Baker-Just equation in modeling LOCAs.[11]

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[4] *See* 10 C.F.R. § 50.46(b).

[5] *Id.,* pt. 50, app. K § I.A.5 (citation omitted).

[6] Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation's Hearing Request and Petition to Intervene Regarding Tennessee Valley Authority's License Amendment Request for Extended Power Uprates for Browns Ferry Nuclear Plant Units 1, 2, and 3 (Sept. 9, 2016) (Petition). The petition was supported by the declaration of Mr. Mark Leyse. Declaration of Mark Leyse to Support the Hearing Request and Petition for Leave to Intervene by the Bellefonte Efficiency and Sustainability Team/Mothers Against Tennessee River Radiation Regarding Tennessee Valley Authority's License Amendment Request for Extended Power Uprates for Browns Ferry Nuclear Plant Units 1, 2, and 3 (Sept. 6, 2016) (Leyse Declaration).

[7] Petition at 7-10.

[8] *Id.* at 7-23.

[9] *See, e.g., id.* at 7-9, 29; Leyse Declaration ¶¶ 25-27, 40.

[10] Petition at 9; *see also* Leyse Declaration ¶¶ 79, 88.

[11] Petition at 23-28; *see* PRM-50-93, Letter from Mark Leyse to Annette L. Vietti-Cook, Secretary, NRC, "Petition for Rulemaking Submitted Pursuant to 10 C.F.R. § 2.802" (Nov. 17, 2009) (ML093290250) (PRM-50-93). In his petition for rulemaking, which remains pending before the NRC, Mr. Leyse requests that the NRC revise 10 C.F.R. § 50.46 and 10 C.F.R. Part 50, Appendix K. Mr. Leyse argues (among other things) that the maximum cladding temperature set by 10 C.F.R. § 50.46(b)(1) — 2200°F — is non-conservative and should be re-set based on data from other severe fuel damage experiments. PRM-50-93 at 5. Mr. Leyse also asserts in the rulemaking petition that the Baker-Just equation is non-conservative and that rates of oxidation, hydrogen generation, and energy generation from the metal-water reaction should likewise be based on data from such experiments. PRM-50-93 at 73. PRM-50-93 was combined with rulemaking petition PRM-50-95,

(Continued)

BEST/MATRR offered three interrelated contentions, all resting on the argument that the safety justification for the proposed extended power uprate at Browns Ferry is flawed because it used models employing the Baker-Just equation.[12] First, BEST/MATRR claimed that the modeling in the LOCA analyses is "scientifically indefensible." Second, BEST/MATRR argued that TVA had not "scientifically demonstrated" that peak cladding temperatures during a LOCA would not exceed 2200˚F as required by 10 C.F.R. § 50.46(b)(1). Third, BEST/MATRR argued that, in view of these deficiencies, its members and the public are threatened by the proposed power uprate.

Both the NRC Staff and TVA opposed the intervention on the ground that none of BEST/MATRR's proposed contentions were admissible.[13] Among other things, the Staff argued that, by virtue of the pendency of Mr. Leyse's petition for rulemaking, BEST/MATRR's contentions (raising claims substantively identical to those raised by the rulemaking petition) were barred because they were (or were about to become) the subject of general rulemaking.[14]

BEST/MATRR focused its reply on the fact that PRM-50-93/95 has been long pending (since 2009) and suggested that the rulemaking petition should not bar admission of its contentions because it remains unresolved.[15] BEST/MATRR, in its reply, also requested a stay of action on TVA's application.[16]

The Board denied BEST/MATRR's hearing request for lack of an admissible contention.[17] First, the Board found that the contentions were "all expressions of [BEST/MATRR's] fundamental challenge" to 10 C.F.R. Part 50, Appendix K

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a similar petition filed by Mr. Leyse and Raymond Shadis related specifically to Vermont Yankee Nuclear Power Station. *See* Letter from Mark Leyse to R. William Borchardt, NRC, "10 C.F.R. § 2.206 Request to Lower the Licensing Basis Peak Cladding Temperature of Vermont Yankee Nuclear Power Station (Docket-50-271) in Order to Provide a Necessary Margin of Safety — to Help Prevent a Meltdown — in the Event of a Loss-of-Coolant Accident" (June 7, 2010) (ML102770018). We refer to the combined petitions as "PRM-50-93/95."

[12] Petition at 29-36; *see also* Leyse Declaration ¶¶ 122-152.

[13] NRC Staff Answer to BEST/MATRR Petition to Intervene and Hearing Request (Oct. 4, 2016) (Staff Answer), Tennessee Valley Authority's Answer Opposing Petition for Leave to Intervene and Request for Hearing (Oct. 4, 2016).

[14] Staff Answer at 9-10 (citing *Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-10-19, 72 NRC 98, 100 (2010)).

[15] *See* Reply of the Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation to Answers of the Nuclear Regulatory Commission Staff and Tennessee Valley Authority on the License Amendment Request for Extended Power Uprates for Browns Ferry Nuclear Plant Units 1, 2, and 3 (Oct. 14, 2016). BEST/MATRR asserted further that the Staff has engaged in "bad faith" behavior over the course of its review of the rulemaking petition. *Id.* at 4-11.

[16] *Id.* at 12.

[17] The Board found that BEST/MATRR demonstrated standing. LBP-16-11, 84 NRC at 144. That ruling has not been appealed.

§ I.A.5 and thereby improperly challenged a regulation of general applicability.[18] Second, the Board held that the contentions were inadmissible because they raise matters that are the subject of a current rulemaking petition.[19] And third, the Board found that inasmuch as BEST/MATRR did not assert that the modeling in TVA's application was not performed in accordance with NRC rules, or point to any other error in the application, the contentions failed to raise a genuine dispute with the application.[20]

The Board did not rule on BEST/MATRR's stay request. Although the Board observed that BEST/MATRR's request appeared to be late, the Board held that it lacked the authority to issue a stay under the circumstances presented here.[21]

BEST/MATRR now appeals the Board's denial of its hearing request. TVA and the Staff oppose the appeal.[22]

II. DISCUSSION

Our regulations allow a petitioner whose hearing request has been wholly denied to appeal as of right.[23] We generally defer to the Board on matters of contention admissibility unless an appeal demonstrates an error of law or abuse of discretion.[24]

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[18] *Id.* at 145 (citing 10 C.F.R. § 2.335(b), which provides, in relevant part, "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" unless the Commission grants a petition for waiver of the rule in the particular proceeding). The Board noted that BEST/MATRR did not request a waiver, and it further found that there were no special circumstances that would warrant one. *Id.*

[19] *Id.* (citing *Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)).

[20] *Id.* (citing 10 C.F.R. § 2.209(f)(1)(vi)). The Board noted that, although BEST/MATRR asserted that a LOCA could result in peak cladding temperatures exceeding the regulatory limits set forth in 10 C.F.R. § 50.46(b), its claim was predicated on the use of its own preferred modeling approach, not the modeling approach required by Appendix K. *Id.* at 145 n.35.

[21] *Id.* at 146 (citing *Louisiana Energy Services, L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004); 10 C.F.R. § 2.802(e); *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 22 n.37 (2007)). The Board likewise held that it lacked the authority to review BEST/MATRR's claim of unreasonable delay in the disposition of PRM-50-93/95. *Id.*

[22] *See* NRC Staff's Brief in Opposition to BEST/MATRR's Appeal of LBP-16-11 (Dec. 20, 2016); Tennessee Valley Authority's Answer Opposing Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation Petition for Review of LBP-16-11 (Dec. 20, 2016).

[23] 10 C.F.R. § 2.311(c).

[24] *See, e.g., Pacific Gas & Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-16-9, 83 NRC 472, 482 (2016); *Crow Butte Resources, Inc.* (Marsland Expansion Area), CLI-14-2, 79 NRC 11, 13-14 (2014).

BEST/MATRR asks that we either reverse the Board's decision denying it a hearing or that we grant a stay of this licensing action pending resolution of the rulemaking petition.[25] But BEST/MATRR focuses its appeal on concerns associated with PRM-50-93/95, rather than on the Board's findings.[26]

We affirm the Board's decision with respect to BEST/MATRR's proposed contentions. BEST/MATRR does not assert specific error in the Board's decision, and we find none. The Board correctly held that all three contentions fundamentally challenge the adequacy of the Baker-Just equation that is required for use in emergency core cooling system evaluation models pursuant to 10 C.F.R. Part 50, Appendix K § I.A.5. A challenge to that general rule is not cognizable in this license amendment proceeding. BEST/MATRR did not seek a waiver of the regulation for this matter, and we find no grounds for a waiver in any event. "The sole ground" for waiver "is that special circumstances with respect to the subject matter of a particular proceeding are such that the application of the rule or regulation . . . would not serve the purposes for which the rule was adopted."[27] In applying this standard, we have long required the proponent of waiver to demonstrate that these special circumstances are "unique to the facility rather than common to a large class of facilities."[28] We find nothing in BEST/MATRR's filings to indicate that the Browns Ferry facility has any unusual feature that invalidates the Baker-Just equation as applied to that facility. In this vein, we likewise agree with the Board that the petition for rulemaking is a more appropriate avenue for resolving BEST/MATRR's generic concerns about the Baker-Just equation (codified in our rules) than is a site-specific contention in this adjudication.[29] Further, as the Board correctly noted, because BEST/MATRR did not dispute that the evaluations supporting TVA's application complied with applicable regulatory requirements, the contentions failed to raise a genuine, material dispute with the application.[30]

BEST/MATRR renews its request that we stay final action on the license amendment request until the Staff has acted on rulemaking petition PRM-50-

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[25] Appeal at 2.

[26] BEST/MATRR submitted a reply to the Staff and TVA's answers to its appeal that reiterated its request to suspend the licensing proceeding. *See* The Bellefonte Efficiency & Sustainability Team/Mothers Against Tennessee River Radiation ("BEST/MATRR") Response to the U.S. Nuclear Regulatory Commission Staff and Tennessee Valley Authority's Answers in Opposition to BEST/MATRR's Appeal of LBP-16-11 (Dec. 30, 2016). The NRC's rules of procedure do not provide an appellant the right to reply to answers. *See* 10 C.F.R. § 2.311(b). Nonetheless, we reviewed the reply as a matter of discretion and were not persuaded that suspension would be appropriate.

[27] 10 C.F.R. § 2.335(b).

[28] *E.g., Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560-61 (2005) (internal quotations omitted).

[29] *See, e.g., Vermont Yankee,* CLI-07-3, 65 NRC at 17, 20-21.

[30] LBP-16-11, 84 NRC at 145; *see also* Leyse Declaration ¶ 21.

93/95.[31] BEST/MATRR has not met its burden to justify staying the licensing proceeding until a final disposition of PRM-50-93/95.[32] We consider such a suspension "drastic action" and will grant one only where we find that moving forward with the proceeding presents an "immediate threat[ ] to public health and safety," would be an "obstacle to fair and efficient rulemaking," or would prevent implementation of the contemplated policy or rule change.[33]

BEST/MATRR claims, without elaboration, that its members and the public will suffer irreparable harm if the license is granted using a non-conservative evaluation method.[34] Although BEST/MATRR's intervention petition argued generally that the Baker-Just equation is "nonconservative," it made no specific showing that the electrical power uprate requested in TVA's application would challenge the emergency core cooling system in case of a LOCA at Browns Ferry Nuclear Plant. Instead, it provided Mr. Leyse's general assertion that "[i]f a reactor's power level is set too high after being 'qualified by LOCA analyses that do not ensure an adequate margin of safety, a real-life LOCA would lead to a beyond design-basis accident."[35] "'Merely raising the specter of a nuclear accident' does not demonstrate irreparable harm."[36] BEST/MATRR's assertions that its members will face "irreparable injury" fall short of the necessary showing.[37] We therefore find that a suspension is not warranted.[38]

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[31] Appeal at 12.

[32] In support of its stay request BEST/MATRR cites to 5 U.S.C. § 705, which is inapposite here as it pertains to judicial stays. *Id.* Because BEST/MATRR seeks a stay pending resolution of PRM-50-93/95, we look to 10 C.F.R. § 2.802(e). That section provides that "the [petitioner may request the Commission to suspend all or any part of any licensing proceeding to which the petitioner is a participant pending disposition of the petition for rulemaking." Mr. Leyse is a contractor to BEST/MATRR in this proceeding and has not represented that he is a member of BEST/MATRR and therefore a "participant" in the adjudication. Leyse Declaration ¶ 1. It is not clear, therefore, that BEST/MATRR is entitled to request relief under section 2.802(e), where BEST/MATRR is not itself a proponent of the rulemaking petition. BEST/MATRR has not, however, made the case for a suspension of the licensing proceeding in any event, as discussed *infra.*

[33] *DTE Electric Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-14-7, 80 NRC 1, 7 (2014) (quoting *Union Electric Co.* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 158 (2011); *see also Pacific Gas & Electric Co.* (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-03-4, 57 NRC 273, 277 (2003).

[34] *See* Appeal at 4, 11, 12.

[35] Leyse Declaration ¶ 27.

[36] *Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc.* (Vermont Yankee Nuclear Power Station), CLI-06-8, 63 NRC 235, 237-38 (2006) (quoting *Mass. Coal. of Citizens with Disabilities v. Civil Def. Agency,* 649 F.2d 71, 75 (1st Cir. 1981)).

[37] BEST/MATRR likewise does not argue that moving forward with the licensing proceeding would interfere with fair and efficient decision-making or that it would prevent the implementation of a new rule or policy.

[38] *See Fermi,* CLI-14-7, 80 NRC at 7-9; *see also Diablo Canyon,* CLI-03-4, 57 NRC at 277 (be-

(Continued)

BEST/MATRR focuses much of its appeal on claims that the Staff has acted in bad faith or unreasonably delayed resolving PRM-50-93/95 — tantamount to a constructive denial of the rulemaking petition. We observe that, while the Staff's review of PRM-50-93/95 has spanned several years, consistent progress on review of the petition has been documented and released to the public, highlighting the Staff's careful consideration of each of the claims Mr. Leyse and the other petitioners have raised.[39] Thus, PRM-50-93/95 has not been constructively denied. Regardless, this site-specific licensing proceeding is not the forum in which to pursue claims about a pending rulemaking petition. The Staff's review of the rulemaking petition thus far has not identified any non-conservatisms in the regulations.[40] Were it to do so, we would expect that the Staff would notify us promptly so that we can consider whether further action is warranted.

III. CONCLUSION

For the foregoing reasons, we *affirm* the Board's decision in LBP-16-11.

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cause "every license the Commission issues is subject to the possibility of additional requirements, moving forward" with a licensing action "does not foreclose the implementation of any new rules originating from the pending rulemaking petition" (emphasis and internal quotations omitted).

[39] Several draft interim evaluations have been publicly released; these evaluations demonstrate that the Staff continues to make progress in its assessment of the rulemaking petition. *See, e.g.,* Memorandum from Brian W. Sheron, Director, Office of Nuclear Regulatory Research, to Eric J. Leeds, Director, Office of Nuclear Reactor Regulation, "Transmittal of an Evaluation of CORA Severe Accident Data Related to the User Need Request for Technical Analysis of Petition for Rulemaking on 10 CFR 50" (Aug. 23, 2011) (ML112211930) (package) (Interim Review — CORA Tests); Memorandum from Brian W. Sheron, Director, Office of Nuclear Regulatory Research, to Eric J. Leeds, Director, Office of Nuclear Reactor Regulation, "Transmittal of a Revised Evaluation of LOFT LP-FP-2 Data Related to the User Need Request for Analysis of Petition for Rulemaking on 10 CFR 50" (Dec. 6, 2011) (ML113050370) (package) (Interim Review — LOFT LP-FP-2 Test); "Draft Interim Review of PRM-50-93/95 Issues Related to Conservatism of 2200 degrees F, Metal-Water Reaction Rate Correlations, and 'The Impression Left from [FLECHT] Run 9573'" (Oct. 16, 2012) (ML12265A277) (Interim Review — Conservatisms); Memorandum from Brian W. Sheron, Director, Office of Nuclear Regulatory Research, to Eric J. Leeds, Director, Office of Nuclear Reactor Regulation, "Evaluation of PRM-50-93/95 Request for Rulemaking to Specify a Minimum Allowable Core Reflood Rate" (Feb. 27, 2013) (ML13015A703) (package) (Interim Review — Minimum Allowable Core Reflood Rate). Mr. Leyse has provided extensive comments on these interim evaluations; the NRC Staff will consider those comments in its development of the final evaluation of PRM-50-93. *See, e.g.,* E-mail from A. Mohseni, NRC, to M. Leyse (Nov. 6, 2015) (ML15317A054); E-mail from M. Leyse to A. Mohseni, NRC, et al., "Re: Fwd: Status of PRM-50-93/95" (Dec. 3, 2015) (ML15341A237).

[40] *See* Interim Review — CORA Tests at 1; Interim Review — LOFT LP-FP-2 Test at 5; Interim Review — Conservatisms at 10; Interim Review — Minimum Allowable Core Reflood Rate at 7.

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 4th day of April 2017.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of **Docket No. 50-293-EA**

ENTERGY NUCLEAR OPERATIONS, INC.
(Pilgrim Nuclear Power Station) **April 16, 2017**

LICENSE AMENDMENTS

While hearing opportunities do not accompany every type of NRC regulatory action, the NRC does provide hearing opportunities in connection with license amendment proceedings. We have also recognized that agency actions not formally labeled as license amendments nevertheless can constitute de facto license amendments and accordingly trigger hearing rights for the public, but only if the NRC action has (1) granted the licensee any greater authority or (2) otherwise altered the original terms of the license.

HEARING RIGHTS

Atomic Energy Act (AEA) hearing rights are limited with respect to NRC enforcement and oversight activities. NRC decisions not to enforce particular requirements against particular licensees are not equivalent to license amendments and are not subject to hearing opportunities under the AEA.

LICENSE AMENDMENTS

Because order relaxation is an exercise of NRC enforcement discretion, a requested relaxation would not formally alter the terms of the NRC order or

otherwise change the terms of an NRC license. Therefore, it would not constitute a license amendment.

LICENSE AMENDMENTS

Order relaxation is distinct from amending licenses not just in name, but also in substance: specifically, in the lack of alteration of license terms and the consequent lack of hearing rights for licensees should the NRC subsequently decide to revoke the relaxation. Further, exercising discretion in enforcement of a term of an order requiring additional safety measures is not analogous to affirmatively authorizing a licensee to undertake some new, previously unlicensed activity. It is the latter that is the defining feature of a license amendment for AEA purposes.

MEMORANDUM AND ORDER

Pilgrim Watch, on behalf of itself and a number of other groups, has requested a hearing on a recent request filed by Entergy Nuclear Operations, Inc. for an extension of time to comply with an NRC order with respect to Pilgrim Nuclear Power Station.[1] For the reasons discussed below, we deny Pilgrim Watch's hearing request.

I. BACKGROUND

Prompted by the March 11, 2011, earthquake and tsunami and the resulting accident at the Fukushima Dai-ichi nuclear plant in Japan, the NRC embarked on an extensive lessons-learned initiative. One product of this initiative was orders requiring certain plants to install reliable hardened containment vents. The NRC issued the first such order, EA-12-050, on March 12, 2012.[2] After

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[1] Pilgrim Watch & Co-Petitioners Request for Hearing Regarding Entergy's Request for Extension to Comply with NRC Order EA-13-109, Section IV Requirements Regarding Implementation of Phase 1 and Phase 2 Severe Accident Capable Vents for Pilgrim Nuclear Power Station (Sept. 7, 2016) (Pilgrim Watch Hearing Request). The hearing request identifies the other groups on whose behalf the request is filed as Beyond Nuclear, Pilgrim Coalition, Pilgrim Legislative Advisory Coalition, Cape Downwinders, Cape Downwinders Cooperative, Massachusetts Downwinders, and Citizens Awareness Network. *Id.* at 1, 3-9.

[2] "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents (Effective Immediately)," EA-12-050 (Mar. 12, 2012) (ADAMS accession no. ML12056A043) (EA-12-050).

further examination of the issue, the NRC subsequently issued another order, EA-13-109, which rescinded and replaced EA-12-050.[3]

EA-13-109 introduces its requirements by stating that "all licenses identified in Attachment 1 to this order are modified as follows," and then it specifies four conditions (labeled A through D) and provides a concluding paragraph addressing those conditions.[4] Pilgrim is one of the plants listed in Attachment 1 to EA-13-109. After Condition A provides that EA-13-109 supersedes the previous post-Fukushima hardened vents order (EA-12-050), Condition B then sets forth the basic EA-13-109 substantive requirements, directing plants to "promptly start implementation of the requirements in Attachment 2 to this Order upon issuance of the associated final interim staff guidance (ISG)" for each of the two implementation phases ("Phase 1" and "Phase 2").[5] The role of the ISGs is to serve as the agency's primary implementing guidance documents for the substantive provisions of EA-13-109. Condition C then outlines requirements to notify the NRC in the event a licensee believes relief from Condition B requirements is necessary or appropriate for the licensee's plant.[6] Most relevant to this matter, subpart 1 of Condition C states:

> All Licensees shall, within twenty (20) days of the issuance date of the final ISG for Phase 1, notify the Commission (1) if they are unable to comply with any of the Phase 1 requirements described in Attachment 2, (2) if compliance with any of the Phase 1 requirements is unnecessary in their specific circumstances, or (3) if implementation of any of the Phase 1 requirements would cause the Licensee to be in violation of the provisions of any Commission regulation or the facility license. The notification shall provide the Licensee's justification for seeking relief from or variation of any specific requirement.[7]

In the paragraph immediately following the list of conditions, EA-13-109 states, "The Director, Office of Nuclear Reactor Regulation [NRR] may, in writing, relax or rescind any of the above conditions upon demonstration by the Licensee of good cause."[8]

On November 14, 2013, the NRC Staff issued the final ISG for the EA-13-

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[3] "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Effective Immediately)," EA-13-109 (June 6, 2013) (ML13143A334) (EA-13-109).

[4] *Id.* at 10-13.

[5] *Id.* at 10-11.

[6] *Id.* at 11-12.

[7] *Id.* at 11. Condition D contains requirements for submitting compliance plans and progress reports to the NRC.

[8] *Id.* at 13.

109 Phase 1 requirements.[9] Under the terms of condition C.1 as quoted above, therefore, the post-ISG notification deadline for Phase 1 was twenty days after that, or December 4, 2013.

In November 2015, Entergy notified the NRC of its intention to "permanently cease power operations at [Pilgrim] no later than June 1, 2019."[10] Subsequently, in June 2016, Entergy filed a request with the NRC for an extension of time to comply with certain requirements of EA-13-109 at Pilgrim.[11] Entergy cited, as its basis for the request, its announced plans to shut down Pilgrim permanently as well as its alternative plan to "have in-place [at Pilgrim] a fully capable Severe Accident Strategy that meets all of the primary objectives of" EA-13-109.[12]

To support its assertion that its planned alternative approach would satisfy EA-13-109's primary objectives, Entergy stated that Pilgrim's containment venting system, modified in 2014, "meets the requirements of EA-13-109" with three exceptions.[13] Entergy then described proposed means, which Entergy claimed it would rely upon if its request were granted, for addressing two of the three identified exceptions, and claimed further that Pilgrim's short remaining operating life renders it unnecessary for Entergy to address the third exception.[14]

According to Entergy, this relaxation request for Pilgrim would be followed later, once the plant has permanently shut down, by another request for relief from the EA-13-109 requirements at issue.[15] Entergy stated that its request was being filed "[i]n accordance with Section IV" of EA-13-109, which contains

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[9] JLD-ISG-2013-02, "Compliance with Order EA-13-109, Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation [U]nder Severe Accident Conditions" (Nov. 14, 2013) (ML13304B836).

[10] Letter No. 2.15.080 from John Ventosa, Entergy, to NRC Document Control Desk, "Notification of Permanent Cessation of Power Operations" (Nov. 10, 2015) (ML15328A053).

[11] Letter No. 2.16.028 from John A. Dent, Jr., Entergy, to NRC Document Control Desk, "Request for Extension to Comply with NRC Order EA-13-109, Order Modifying Licenses [w]ith Regard [t]o Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions" (June 24, 2016) (ML16187A325) (Entergy Extension Request).

[12] *Id.* at 2; *see also id.,* Attach. 1 at 1. Entergy also cited an earlier extension request regarding EA-13-109 that the NRC has already granted for the Oyster Creek Nuclear Generating Station, another plant that has announced plans to permanently shut down in 2019. *Id.,* Attach. 1.

[13] *Id.,* Attach. 1 at 2. Specifically, Entergy indicated that the system does not yet include a permanent radiation monitor or a dedicated power supply and that Entergy has not yet developed the "detailed plans for [hardened containment vent system] testing and inspection required by the Order." *Id.*

[14] *See id.* (summarizing Entergy's plan to use a combination of existing radiation monitors in lieu of installing a new permanent radiation monitor and to use station batteries rather than installing a dedicated power supply for the system, and stating that "[w]hile Pilgrim will comply with the current established testing and inspection, the abbreviated operating timeframe (i.e., one operating cycle) will not require development of detailed" venting system testing and inspection plans).

[15] *Id.* at 2.

the order's conditions and the paragraph that addresses "good cause" relaxation of those conditions, and that it was asking the Director of NRR to grant the extension.[16]

II. DISCUSSION

Section 189a.(1)(A) of the Atomic Energy Act of 1954, as amended (AEA), provides hearing rights with respect to "any proceeding . . . for the granting, suspending, revoking, or amending of any license."[17] Accordingly, while hearing opportunities do not accompany every type of NRC regulatory action,[18] the NRC does provide hearing opportunities in connection with license amendment proceedings. We have also recognized that "agency actions not formally labeled as license amendments nevertheless can constitute *de facto* license amendments and accordingly trigger hearing rights for the public,"[19] but only if the NRC action has "(1) granted the licensee any greater authority or (2) otherwise altered the original terms of the license."[20]

Pilgrim Watch asserts that Entergy's relaxation request, though not styled as a license amendment request, is "in reality" a license amendment request and, as a result, is subject to hearing rights at the NRC. The NRC Staff and Entergy oppose the hearing request, arguing that the relaxation request is not properly viewed as a request for a license amendment.[21]

Specifically, Pilgrim Watch argues that EA-13-109 "modified, i.e., amended, the then-current licenses for twenty Operating Boiling Water Reactor Licensees, including Pilgrim."[22] The effect of the order's amendment, Pilgrim Watch states, was "to require the installation of reliable hardened vents promptly to be completed — 'no later than startup from the second refueling outage that begins after

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[16] *Id.*

[17] 42 U.S.C. § 2239(a)(1)(A).

[18] *Massachusetts v. NRC,* 878 F.2d 1516, 1522 (1st Cir. 1989); *Commonwealth Edison Co.* (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 96 (2000); *see also Florida Power & Light Co. v. Lorion,* 470 U.S. 729, 739 (1985).

[19] *Omaha Public Power District* (Fort Calhoun Station, Unit 1), CLI-15-5, 81 NRC 329, 334 (2015).

[20] *Pacific Gas & Electric Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-16-9, 83 NRC 472, 474 (2016) (citing *Cleveland Electric Illuminating Co.* (Perry Nuclear Power Plant, Unit 1), CLI-96-13, 44 NRC 315, 326 (1996)).

[21] NRC Staff's Response to Pilgrim Watch & Co-Petitioners' Request for Hearing (Oct. 3, 2016) (Staff Answer); Entergy's Answer Opposing Request for Hearing Regarding Pilgrim and EA-13-109 (Oct. 3, 2016) (Entergy Answer).

[22] Pilgrim Watch Hearing Request at 9.

June 30, 2014 or June 30, 2018, whichever comes first.'"[23] Pilgrim Watch then asserts that Entergy's request "seeks to amend Pilgrim's license by delaying the compliance date" for Phase 1 to December 31, 2019, and that Entergy submitted the request well beyond the deadline specified in EA-13-109 Condition C.1, which Pilgrim Watch's hearing request suggests was the EA-13-109 provision governing this request.[24]

Based on this reasoning, Pilgrim Watch characterizes Entergy's request as "a transparent attempt to avoid the general requirements and guidance for amending an existing license as set forth in" NRC regulations governing license amendments.[25] Pilgrim Watch accordingly contends that "the NRC's rules, practice and regulations require that Petitioners, and any other parties with standing, be provided a hearing prior to issuance of Entergy's requested amendment."[26]

In response, Entergy and the Staff each argue that EA-13-109 itself permits relaxation of any EA-13-109 requirements upon the licensee successfully demonstrating "good cause" to the Director of NRR and that this "good cause" provision (rather than Condition C.1) governs Entergy's extension request.[27] The Staff further argues that relaxation of an order falls within the same authority as the initial authority to issue the order.[28] Reasoning that the Commission has limited the scope of hearings on orders to the question of "whether the order should be sustained," the Staff contends that relaxation of an order falls outside of the scope of issues that may be addressed in hearings involving orders.[29] Both

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[23] *Id.* at 16.

[24] *Id.* at 10-11, 16.

[25] *Id.* at 16.

[26] *Id.* at 11.

[27] Staff Answer at 12; Entergy Answer at 12, 15. Entergy, in addition to citing to language in its own extension request to support its position that it filed the extension request under the "good cause" provision, also cites, as further support, portions of the earlier Oyster Creek extension request that reference the "good cause" provision. Entergy Answer at 12 n.44. Entergy's extension request for Pilgrim specifically states that it "is based on the extension request already approved by the NRC for Oyster Creek." Entergy Extension Request, Attach. 1 at 1. In granting the Oyster Creek extension request, the Director of NRR relied on the EA-13-109 "good cause" provision. *See* Letter from W. Dean, NRC, to B. Hanson, Exelon Generation Co., LLC, "Oyster Creek Nuclear Generating Station — Relaxation of the Schedule Requirements for Order EA-13-109; Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (TAC No. MF4352)" (Nov. 16, 2015), at 2 (ML15092A159) ("In light of the facts presented in the licensee's [extension request] letters, the NRC staff has determined that the licensee has presented good cause for a relaxation of the order implementation date for Phase I implementation of Order EA-13-109."). Entergy and the Staff point out that Pilgrim Watch's hearing request does not even mention this "good cause" provision. Entergy Answer at 12; Staff Answer at 12.

[28] Staff Answer at 12.

[29] *Id.* at 12-13.

the Staff and Entergy also argue that order relaxation falls within the realm of enforcement and ongoing regulatory oversight, where hearing rights are limited, rather than licensing.[30] Entergy and the Staff also argue that to the extent Pilgrim Watch claims that Entergy is not complying with EA-13-109,[31] or that some modification to Pilgrim's license is needed for safety reasons,[32] the proper method to raise such a challenge is by filing a petition for enforcement under 10 C.F.R. § 2.206, not by requesting an adjudicatory hearing.

Entergy further argues that the EA-13-109 "good cause" provision "does not provide any hearing opportunity for relaxation requests; nor has the Commission ever recognized such a hearing opportunity."[33] Entergy also cites the NRC Enforcement Manual as reflecting a "longstanding Commission policy" that relaxation provisions in orders are designed to allow order relaxation to be handled on a relatively informal basis.[34]

In its reply to the Staff's and Entergy's answers, Pilgrim Watch argues that the name given to the requested action — "relaxation" rather than "amendment" — is irrelevant.[35] In Pilgrim Watch's view, even if the requested action is labeled a "relaxation" that would be accomplished pursuant to the EA-13-109 "good cause" provision, it would still have the effect of amending Pilgrim's license by changing the deadline set by EA-13-109 for Phase 1 compliance, which, Pilgrim Watch states, means that hearing rights attach.[36] Pilgrim Watch also argues that the lack of hearing rights associated with NRC orders applies only to the extent the NRC is imposing stricter requirements to make a plant safer, not where the NRC is relaxing requirements.[37]

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[30] *See id.* at 14 (arguing that assessing "good cause" order-relaxation requests "is part of the Staff's regulatory and enforcement role" and that "[r]equiring a hearing each time the Staff made such a determination would lead to the interminable hearings the Commission sought to avoid in limiting the scope of those proceedings, and would impede the regulatory process"); Entergy Answer at 15-17 (arguing that "recent Commission decisions have made clear that agency actions related to at least two related topics do not trigger hearing opportunities: enforcement and oversight," and asserting that "[a] request for 'relaxation' of the requirements of an order is comparable to both of these topics").

[31] Staff Answer at 14; Entergy Answer at 13-14.

[32] Staff Answer at 14.

[33] Entergy Answer at 12.

[34] *Id.* (citing NRC Enforcement Manual (Rev. 9) (Sept. 9, 2013, updated Dec. 10, 2015), at 162 (ML102630150) (Enforcement Manual)).

[35] Petitioners' Response to NRC Staff's and Entergy's Opposition to Petitioners' Request for Hearing Regarding Entergy's Request for Extension to Comply with NRC Order EA-13-109 (Oct. 11, 2016), at 6 (Pilgrim Watch Reply).

[36] *Id.* at 6-8; *see also id.* at 19 ("[I]t is clear that simply including [a "good cause"] provision in an Order could not excuse the Commission, or anyone to who it might delegate any of the Commission's authority, from complying with the Atomic Energy Act.").

[37] *Id.* at 22-23.

We agree with Entergy and the Staff that the action Entergy requests is not a license amendment triggering hearing rights under section 189a. of the AEA. Entergy and the Staff are correct that AEA hearing rights are limited with respect to NRC enforcement and oversight activities. Here, we view Entergy as asking the NRC to exercise its inherent discretion not to enforce particular terms of EA-13-109 with respect to Pilgrim, pursuant to the "good cause" order-relaxation process EA-13-109 specifies for invoking that discretion. We agree with the explanation in the Staff answer that even if the NRC grants the requested relaxation, EA-13-109 would still "remain in effect at Pilgrim and the relaxation could be revoked at any time."[38] NRC decisions not to enforce particular requirements against particular licensees are not equivalent to license amendments and are not subject to hearing opportunities under the AEA.[39]

Because order relaxation is an exercise of NRC enforcement discretion, the relaxation that Entergy requests would not formally alter the terms of EA-13-109 or otherwise change the terms of Pilgrim's license. Therefore, it would not constitute a license amendment. As the Staff explained, if the Staff grants Entergy's relaxation request based, at least in part, on Entergy's commitments to take alternative safety measures, but then Entergy does not follow through on its commitments, the Staff would have a clear recourse: it could revoke the relaxation and take any appropriate enforcement action based on Pilgrim's noncompliance with EA-13-109.[40] With relaxation being an enforcement discretion tool that does not formally alter any EA-13-109 requirements, revoking the relaxation would not require the NRC to issue a new order, and it would not provide Entergy with any hearing rights to contest the revocation.[41] To obtain more substantial safeguards, including hearing rights, against the NRC subse-

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[38] Staff Answer at 14 n.63. Viewing order relaxation through the lens of enforcement is consistent with the "good cause" provision's origins as an NRC enforcement tool routinely included in enforcement orders. *See* Enforcement Manual at 155, 162.

[39] *See Illinois v. NRC,* 591 F.2d 12 (7th Cir. 1979) (holding that NRC denial of petition filed under 10 C.F.R. § 2.206 to modify, suspend, or revoke a license does not trigger hearing rights under AEA); *see also Union of Concerned Scientists v. NRC,* 711 F.2d 370, 383 (D.C. Cir. 1983) (distinguishing, for purposes of notice and comment requirements under the Administrative Procedure Act, between an NRC "'statement of policy' regarding its intent not to enforce [a] deadline" and an NRC action that actually amends licenses). An NRC Enforcement Manual provision cited by Pilgrim Watch that addresses NRC inter-office coordination in connection with order relaxation requests, but which makes no mention of adjudicatory hearings, does not indicate otherwise. *See* Pilgrim Watch Reply at 5; Enforcement Manual at 162.

[40] Entergy proposes to rely on alternative measures to achieve some of the goals of EA-13-109. We understand Entergy's commitments regarding alternative safety measures as intended to support its "good cause" showing.

[41] Even though there may not be formal procedures or hearing rights associated with revocation of a previous order-relaxation decision, we expect that any Staff decision to revoke a previous order relaxation decision would be supported by a reasoned basis. And if the revocation of a relaxation

quently revoking the relaxation, Entergy would need to request a formal change to the terms of its license by applying for a license amendment.[42]

Pilgrim Watch argues that pertinent federal court decisions require a different result. Given order relaxation's function as an enforcement discretion tool, however, we view our holding as consistent with applicable case law. In *Citizens Awareness Network v. NRC,* the First Circuit Court of Appeals reasoned that "it is the *substance* of the NRC action that determines entitlement to a section 189a. hearing, *not* the particular label the NRC chooses to assign to its action."[43] As we have explained, order relaxation is distinct from amending licenses not just in name, but also in substance: specifically, in the lack of alteration of license terms and the consequent lack of hearing rights for licensees should the NRC subsequently decide to revoke the relaxation. Further, exercising discretion in enforcement of a term of an order requiring additional safety measures is not analogous to affirmatively authorizing a licensee to undertake some new, previously unlicensed activity. It is the latter that is the defining feature of a license amendment for AEA purposes.[44]

Additionally, although the D.C. Circuit in *Bellotti v. NRC* drew a distinction between situations "when the Commission amends a license to require additional or better safety measures," which need not involve public hearing rights, and situations when "the Commission proposes to amend a license to remove a restriction upon the licensee," which do trigger public hearing rights, that rule, by its own terms, would not apply where no license is being amended.[45] And while *Bellotti* also expressed the same principle in broader terms, stating that "[p]ublic participation is automatic with respect to all Commission actions that are potentially harmful to the public health and welfare,"[46] we interpret that language, consistent with subsequent views of the U.S. Supreme Court, as addressing only those NRC actions listed in section 189a. of the AEA.[47] An NRC decision not to enforce certain terms of an order is not an action listed in that section.

Consistent with that view, the First Circuit has held that exemptions from NRC regulations that the NRC grants using authority included in those same

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were to result in the NRC taking enforcement action against the licensee, the licensee would have the usual right to request a hearing challenging any enforcement order issued against it.

[42] Applying for a formal license change via the license amendment process would also provide Pilgrim Watch or others an opportunity to challenge the license amendment request in a hearing.

[43] 59 F.3d 284, 295 (1st Cir. 1995).

[44] *Id.* at 294-95.

[45] *See* 725 F.2d 1380, 1383 (D.C. Cir. 1983).

[46] *Id.*

[47] *See Lorion,* 470 U.S. at 739 (recognizing Congressional intent to limit AEA hearing rights to licensing proceedings only).

regulations — an NRC action AEA section 189a. also does not list — do not trigger hearing opportunities under section 189a.[48] Similarly, Entergy here seeks relief from an order's requirements by invoking a relaxation process that the order itself authorizes. Both processes reflect the NRC's exercise of discretion not to enforce applicable requirements against a particular licensee based on the licensee's particular circumstances.[49] Given their similarities, we do not find that one of these processes triggers hearing opportunities under the AEA while the other does not.

Also important is that EA-13-109 allowed licensees, or any other person affected by the order, an opportunity to request a hearing on the order within twenty days of its issuance.[50] Such hearings are limited to the issue of whether the order should be sustained.[51] All other things being equal, an order from which relief may be obtained by making a simple "good cause" showing to a particular NRC Staff official is seemingly less strict — thus providing licensees less incentive to challenge it — than an order from which relief may be obtained only by invoking our formal license amendment process. We decline to find, long after the deadline for requesting a hearing to challenge the order, that the order is stricter than it appears on its face. We are also cognizant of our long-standing policy of "encourag[ing] licensees to consent to, rather than contest,

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[48] *Massachusetts v. NRC,* 878 F.2d 1516, 1521 (1st Cir. 1989); *see also* AEA § 189a. Courts have also recognized the particularly broad discretion agencies have when making enforcement decisions. *See, e.g., Heckler v. Chaney,* 470 U.S. 821, 831 (1985) ("[A]n agency's decision not to prosecute or enforce, whether through civil or criminal process, is a decision generally committed to an agency's absolute discretion."); *Moog Indus., Inc. v. FTC,* 355 U.S. 411, 413 (1958) (recognizing that the FTC "alone is empowered to develop that enforcement policy best calculated to achieve the ends contemplated by Congress and to allocate its available funds and personnel in such a way as to execute its policy efficiently and economically"); *see also Alaska Department of Transportation and Public Facilities* (Confirmatory Order Modifying License), CLI-04-26, 60 NRC 399, 409 (2004) ("The NRC Staff has considerable latitude in choosing enforcement weapons."); *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site Decontamination and Decommission Funding), CLI-97-13, 46 NRC 195, 207 (1997) (discussing the extent of NRC's discretion when "the agency decides whether to initiate enforcement action").

[49] *See Sequoyah Fuels,* CLI-97-13, 46 NRC at 220 ("[I]nsistence on strict regulatory compliance in all cases . . . would rule out agency use of exemptions and enforcement discretion to relax rules in particular circumstances — a position at odds with maintaining regulatory flexibility and with NRC rules and practice.").

[50] EA-13-109 at 13-18.

[51] *See, e.g., All Operating Boiling Water Reactor Licensees with Mark I and Mark II Containments: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents,* CLI-13-2, 77 NRC 39, 44 (2013) (defining scope of hearing as whether the "order should be sustained" in the form it was issued).

enforcement actions."[52] Retroactively reinventing this order provision or requiring a hearing on the provision's exercise when no such hearing had previously been contemplated would undermine that policy with respect to future orders.

We recognize that the "good cause" provision nowhere expressly states that order relaxation is an exercise of enforcement discretion rather than a licensing action. Thus, reading the provision in isolation, one might conclude that order relaxation could have the same sort of formal, binding effect as NRC issuance of a license amendment or order, notwithstanding that the relaxation process described is much simpler than typical NRC licensing processes. Considering all relevant factors, however, we do not view such an interpretation as reasonable. First, the "good cause" provision does not state, or otherwise require, that order relaxation *would* have formal, binding effect akin to that of a license amendment or order. Moreover, as Entergy observed, NRC guidance recognizes a distinction between relaxing an order and issuing a new order — a distinction that would make little sense if the two actions were functionally equivalent.[53] And most importantly, it would be inconsistent with the AEA to interpret the relaxation process described in the "good cause" provision as serving the same functional purpose as the license amendment process.[54] Thus, even if one could argue that the text of the "good cause" provision on its own might permit interpreting order relaxation as the functional equivalent of amending a license, we decline to adopt this problematic interpretation.

The circumstances of EA-13-109's issuance underscore the value of having a built-in mechanism for efficient exercise of enforcement discretion. EA-13-109 provides a one-size-fits-all solution for several plants. Because of our interest in responding promptly to lessons learned from Fukushima, we issued the EA-13-109 requirements via a single generic order rather than through individually tailored, site-specific orders. In doing so, we did not attempt to hardwire

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[52] *Public Service Co. of Indiana* (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 441 (1980); *accord Maine Yankee Atomic Power Co.* (Maine Yankee Atomic Power Station), CLI-04-5, 59 NRC 52, 58 n.21 (2004). Although EA-13-109 was not itself issued as an enforcement measure for violations of NRC requirements, the general policy considerations discussed in *Marble Hill* also apply to orders like EA-13-109. *See All Operating Boiling Water Reactor Licensees with Mark I and Mark II Containments,* CLI-13-2, 77 NRC at 45-49 (discussing case law regarding enforcement actions in context of challenge to post-Fukushima non-enforcement orders and rejecting hearing petitioner's attempt to distinguish the two scenarios for purposes of determining hearing rights).

[53] *See* Entergy Answer at 12 ("[L]ongstanding Commission policy . . . clearly explains that relaxation provisions were explicitly designed 'to *avoid the need to issue another order* should the order need to be relaxed" (emphasis added).).

[54] *See* AEA § 189 (establishing various requirements for NRC license amendment proceedings); *see also* 10 C.F.R. §§ 50.90-50.92 (setting forth NRC regulations governing license amendment proceedings, which aim to ensure compliance with AEA requirements).

a thorough set of exceptions into EA-13-109 itself to account for variance in site-specific circumstances. Instead, we view order relaxation based on a case-by-case "good cause" finding as providing flexibility to account for different circumstances among sites.[55] Indeed, Condition C of EA-13-109 explicitly recognizes the need for site-specific flexibility, at least for plant-specific implementation issues that are identified based on the additional implementation guidance provided in the ISGs.[56]

Because Pilgrim Watch's hearing request also speaks to the merits of Entergy's extension request, and because the Staff's and Entergy's answers include responses to those aspects of the hearing request, we refer the pleadings filed in this matter to the Director of NRR for consideration in reaching a decision on Entergy's relaxation request.[57] Entergy's request is not, however, a license amendment request with an accompanying hearing opportunity.[58]

III. CONCLUSION

For the reasons provided above, we *deny* Pilgrim Watch's request for a license amendment hearing on Entergy's request for relaxation of Commission

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[55] Providing for this exercise of enforcement discretion as an alternative to amending licenses to address site-specific implementation issues is also consistent with our overall interest in handling post-Fukushima matters expeditiously. Moreover, removing the option to address site-specific order-implementation issues where there is good cause to do so could tend to deter future Commission decisions to impose binding requirements by order, particularly with respect to broadly applicable orders like EA-13-109. *See Bellotti,* 725 F.2d at 1382 (explaining that finding more expansive hearing rights in connection with orders may "cause the Commission to be more circumspect in its drafting of orders and seek to accomplish some reforms informally").

[56] With regard to Condition C, we also observe that the "good cause" provision expressly allows relaxation of any of EA-13-109's conditions if there is "good cause" to do so. A relaxation under the provision logically includes any applicable notification deadline in Condition C, not only the substantive requirements in Condition B. The purpose of the Condition C deadline is to ensure timely identification and notification to the NRC of matters derived from the implementation guidance in the ISG — an interest not necessarily pertinent to a request for relaxation based on a licensee's unrelated business decision to close a plant early.

[57] This referral would include the two supporting documents Pilgrim Watch requested be added to the docket in this matter. *See* Letter from Mary Lampert, Pilgrim Watch (Sept. 23, 2016) (transmitting a September 21, 2016, letter from eleven Members of Congress and a September 22, 2016, news article discussing that letter). The referral should not be construed as converting the Director of NRR's decision into a contested adjudicatory matter. Rather, it reflects that agency stakeholders may at any time submit correspondence to the NRC about matters pending before the agency and that we take such input seriously.

[58] Because we deny Pilgrim Watch's hearing request on the ground that Entergy's relaxation request is not a license amendment request, we need not reach questions of whether Pilgrim Watch has demonstrated standing or submitted an admissible contention.

order EA-13-109. We also *refer* the pleadings in this matter, and two other documents Pilgrim Watch requested be added to the docket in this matter, to the Director of NRR for information in connection with Entergy's relaxation request.[59]

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 16th day of April 2017.

[59] In denying Pilgrim Watch's hearing request, we take no position on the merits of Entergy's relaxation request. Per EA-13-109, the merits of Entergy's request are before the Director of NRR.

Additional Views of Commissioner Baran

Although I think the Commission decision reaches the correct legal conclusion, I write separately to discuss in more detail the complex question of first impression presented in this case.

On March 9, 2012, the Commission approved the issuance of Order EA-12-050, which required boiling water reactors with Mark I or Mark II containments, including Pilgrim, to install reliable hardened containment vents.[1] The Commission found that the order was necessary to provide adequate protection of public health and safety.[2] On March 19, 2013, the Commission approved the issuance of an updated order, EA-13-109, which added a requirement that the hardened vents remain functional during severe accidents.[3] The Commission agreed with the Staff that this additional requirement was a cost-justified substantial safety enhancement.[4] The updated order included the following broad language: "The Director, Office of Nuclear Reactor Regulation may, in writing, relax or rescind any of the above conditions [i.e., the requirements] upon demonstration by the Licensee of good cause."[5]

Although this was essentially boilerplate order text that has been used in many orders over the years, the Commission has never before been asked to interpret this language or determine its legal significance and effect. I agree with the Commission decision that it is more reasonable to treat the use of the relaxation provision as an exercise of enforcement discretion rather than as a *de facto* license amendment. But I understand why Pilgrim Watch would see Staff action on the Pilgrim relaxation request as something other than the ordinary exercise of enforcement discretion. Entergy has characterized the requested action as an "extension" to comply with the order. But because Pilgrim is scheduled to permanently shut down by June 1, 2019, the practical effect of granting this "extension" would be that the plant would probably never have to meet the requirements of the order. As the Commission decision explains,

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[1] Staff Requirements — SECY-12-0025 — Proposed Orders and Requests for Information in Response to Lessons Learned from Japan's March 11, 2011, Great Tohoku Earthquake and Tsunami (Mar. 9, 2012).

[2] EA-12-050 at 7.

[3] Staff Requirements — SECY-12-0157 — Consideration of Additional Requirements for Containment Venting Systems for Boiling Water Reactors with Mark I and Mark II Containments (Mar. 19, 2013).

[4] EA-13-109 at 7.

[5] The order itself does not define the terms "relax," "rescind," or "good cause." However, NRC's Enforcement Manual addresses this type of relaxation provision. Section 2.7.8 of the Manual states that the purpose of a relaxation provision is "to avoid the need to issue another order should the order need to be relaxed." It states that "the term 'rescind' should be used when it is concluded that because of a basic mistake of law or fact, the action should not have been issued at all." This is distinct from withdrawing an order, which the Manual defines as "dropping all or part of an order."

exercising enforcement discretion to relax the order will not have the legal effect of withdrawing the order for Pilgrim because the Staff could opt to enforce the requirements of the order at any time. But the requested relaxation would represent an expansive use of the enforcement discretion afforded to the Director of the Office of Nuclear Reactor Regulation. The request does not involve a minor tweak to the order's requirements, such as an extra month to comply or a slightly modified technical approach for complying. The practical result of granting the request would be to set aside the requirements altogether. Though I agree with the Commission's legal conclusion that this potential use of enforcement discretion cannot be classified as a *de facto* license amendment, I want to be clear that my concurrence in the Commission decision should not be read as expressing a view on the merits of granting the Pilgrim relaxation request.

The order's relaxation provision is very broad. It empowers the Director of the Office of Nuclear Reactor Regulation to effectively set aside the core requirements of the order for "good cause" without the approval of the Commission and without any standards or criteria for determining what constitutes "good cause." If I had been serving on the Commission when the order was issued, I would not have supported including this virtually unfettered staff discretion to waive compliance with the central provisions of the Commission's order. When the Commission determines that an order is necessary to provide reasonable assurance of adequate protection of the public health and safety, I believe a relaxation provision should be more narrowly tailored. Going forward, I support directing the Staff to develop general criteria for determining whether there is "good cause" to relax the requirements of an order that the Commission approved as necessary for adequate protection. Standards of this kind would have been helpful in the Staff's evaluation of the Oyster Creek relaxation request, the granting of which is now being cited as precedent for the Pilgrim request.

Pilgrim Watch correctly notes that section 2.7.8 of NRC's Enforcement Manual provides that "[t]he same offices that were involved in issuing the order are to be involved before relaxing or terminating a provision of the order." For the Pilgrim relaxation request and all future requests for the relaxation of orders approved or directed by the Commission, I expect that the Staff will consult with the Commission before making a decision about whether to relax the order. As part of this informal consultation, the Staff should discuss the basis for its determination of whether there is "good cause" to relax such an order.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of **Docket No. 50-341-LR**

DTE ELECTRIC COMPANY
(Fermi Nuclear Power Plant,
Unit 2) **April 26, 2017**

LICENSE RENEWAL PROCEEDINGS, APPELLATE REVIEW

A license renewal may be set aside (or appropriately conditioned) even after it has been issued, upon subsequent administrative or judicial review.

APPEALS, DISCRETIONARY

The Commission may grant a petition for review at its discretion, giving due weight to the existence of a substantial question with respect to the following considerations: (1) a finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding; (2) a necessary legal conclusion is without governing precedent or is a departure from or contrary to established law; (3) a substantial and important question of law, policy, or discretion has been raised; (4) the conduct of the proceeding involved a prejudicial procedural error; or (5) any other consideration that the Commission may deem to be in the public interest.

RULES OF PRACTICE, MOTIONS TO REOPEN

After a record has closed, or a proceeding has terminated, finality attaches to the hearing process. The Commission's rules therefore place a heavy burden on

those filing a motion to reopen a closed record under 10 C.F.R. § 2.326 of the Commission's rules of practice. The motion must 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. And the motion must be timely, although there is a timeliness exception for motions that present an issue that is exceptionally grave.

RULES OF PRACTICE, MOTIONS TO REOPEN

The level of support required for a motion to reopen is greater than that required for a contention under the general admissibility requirements of 10 C.F.R. § 2.309(f)(1). The motion to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the reopening criteria have been satisfied. Evidence contained in the affidavits must meet the evidence admissibility standards in 10 C.F.R. § 2.337. That is, it must be relevant, material, and reliable. Further, the affidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised. Additionally, a motion to reopen that pertains to a new contention must also meet the timeliness requirements in 10 C.F.R. § 2.309(c) and show that the new contention is admissible. All of these requirements must be met for a motion to reopen to be granted.

LICENSE RENEWAL PROCEEDINGS, EMERGENCY PLANNING

Emergency planning issues are outside the scope of the proceeding. Emergency planning issues, however, are addressed as part of the agency's continuing oversight of licensees.

MEMORANDUM AND ORDER

Citizens' Resistance at Fermi 2 (CRAFT) has filed a petition for review of the Atomic Safety and Licensing Board's denial of its motion to reopen this closed license renewal adjudication.[1] For the reasons set forth below, we deny the petition for review.

[1] Citizens' Resistance at Fermi 2 (CRAFT) Appeal to NRC Commission Decision Set Forth in LBP-17-01 (Feb. 3, 2017) (unnumbered) (Petition for Review); LBP-17-1, 85 NRC 3 (2017).

I. BACKGROUND

In 2014, DTE Electric Company applied to renew the operating license for Fermi Nuclear Power Plant, Unit 2, for an additional twenty years.[2] CRAFT filed a timely request for a hearing on DTE's application.[3] The Board granted CRAFT's hearing request and admitted two contentions for hearing.[4] The Board also granted a separate hearing request and admitted one contention filed jointly by Don't Waste Michigan, Citizens Environment Alliance of Southwestern Ontario, and Beyond Nuclear.[5] On appeal, we reversed the Board's decision granting the hearing requests, and the Board terminated the adjudicatory proceeding at our direction.[6]

In the meantime, the NRC Staff continued its review of DTE's license renewal application. The Staff issued the Safety Evaluation Report in July 2016 and the Final Supplemental Environmental Impact Statement (Final SEIS) in September 2016.[7] In early November 2016, the Staff notified us of its intent to issue the renewed license.[8] Shortly thereafter, CRAFT filed a motion to reopen the proceeding with an accompanying motion for leave to file a new contention.[9] CRAFT argued that the Final SEIS is inadequate because the severe accident mitigation alternatives (SAMA) analysis "relies on the input assumption that

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[2] *See* DTE Electric Company; Fermi 2, 79 Fed. Reg. 34,787, 34,787 (June 18, 2014).

[3] Citizens' Resistance at Fermi 2 (CRAFT) Petition for Leave to Intervene and Request for a Public Hearing upon DTE Electric's Request of 20-Year License Extension for the Enrico Fermi 2 Nuclear Reactor (Aug. 18, 2014; corrected Sept. 3, 2014).

[4] LBP-15-5, 81 NRC 249, 254, 308 (2015).

[5] *Id.* at 254, 307.

[6] CLI-15-18, 82 NRC 135, 150 (2015); LBP-15-25, 82 NRC 161, 161 (2015).

[7] Safety Evaluation Report Related to the License Renewal of Fermi 2 (July 2016) (ADAMS accession no. ML16190A241); "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Regarding Fermi 2 Nuclear Power Plant" (Final Report), NUREG-1437, Supplement 56, vols. 1 and 2 (Sept. 2016) (ML16259A103, ML16259A109). The Staff issued the Draft Supplemental Environmental Impact Statement for public comment in October 2015. "Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Regarding Fermi 2 Nuclear Power Plant" (Draft Report for Comment), NUREG-1437, Supplement 56, vols. 1 and 2 (Oct. 2015) (ML15300A064, ML15300A073).

[8] Memorandum from William M. Dean, Director, Office of Nuclear Reactor Regulation, to the Commission (Nov. 9, 2016) (ML16270A270).

[9] [Citizens'] Resistance at Fermi 2 (CRAFT)'s Consolidated Motion to Reopen the Record of License Renewal Proceeding and to File a New Contention for Fermi Unit 2 Nuclear Power Plant (Nov. 21, 2016; corrected Nov. 25, 2016) (Motion to Reopen); Citizens' Resistance at Fermi 2 (CRAFT) Motion Requesting Leave to File a New Contention Based on New and Existing SAMA Considerations of Potassium Iodide Distribution in the Primary EPZ [Emergency Planning Zone] and Secondary EPZ (Nov. 21, 2016; corrected Nov. 25, 2016) (New Contention). We will refer to the corrected versions of CRAFT's filings.

the [potassium iodide] distribution program is largely effective and adequately protective of public health" and therefore "errs by significantly underestimating the economic costs and consequences of a severe accident."[10]

DTE and the Staff opposed CRAFT's motions. Both argued that CRAFT had not satisfied the standards for reopening a closed record or the standards for an admissible contention.[11] On December 6, 2016, the Staff requested our permission to issue the renewed license.[12] We granted the Staff's request, and the Staff issued the renewed license on December 15, 2016.[13]

Thereafter, the Board denied CRAFT's motion to reopen the proceeding.[14] The Board found that CRAFT had not met the reopening standards in 10 C.F.R. § 2.326, and thus the Board did not address the admissibility of CRAFT's pro-

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[10] New Contention at 8; *see also* Motion to Reopen at 1. As we explained in CLI-15-18, SAMA analyses are not safety analyses; they are conducted as part of the NRC's environmental review under the National Environmental Policy Act. CLI-15-18, 82 NRC at 139 n.16. The SAMA analysis focuses "on potential additional mitigation measures that could be implemented to further reduce severe accident risk (probability or consequences)." *NextEra Energy Seabrook, LLC* (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 322 (2012) (emphasis omitted). And by practice, the SAMA analysis has been performed as "a cost-benefit analysis, examining whether particular hardware or procedural changes may be cost-beneficial to implement, given the degree of risk reduction that reasonably could be expected from the change." *Id.*; *see also Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-1, 75 NRC 39, 41 (2012). DTE used the MACCS2 code to perform its SAMA analysis. *See* DTE Electric Company Answer Opposing CRAFT Motion to Reopen and Proposed New Contention (Dec. 1, 2016), at 3 (DTE December 2016 Answer). The code uses a series of inputs that can be varied by the code user, including an input that considers the effect of the ingestion of potassium iodide; potassium iodide may be used to block the thyroid's uptake of radioactive iodine in the event of a severe accident. *See id.* at 3 n.3; *see also id.,* Attach. 1, at 103. *See generally* Guidance on Use of Potassium Iodide as a Thyroid Blocking Agent in Radiation Emergencies; Availability, 66 Fed. Reg. 64,046 (Dec. 11, 2001).

[11] *See* DTE December 2016 Answer at 2; NRC Staff Answer to CRAFT's Motion to Reopen the Record and Petition to Intervene (Dec. 1, 2016), at 1-2. CRAFT filed a reply. Citizens' Resistance at Fermi 2 (CRAFT) Combined Reply to DTE and NRC Staff Answers to CRAFT Consolidated Motions and Proposed New Contention (Dec. 8, 2016) (CRAFT December 2016 Reply).

[12] "Request for Authorization to Issue Renewed Full-Power Facility Operating License for Fermi 2 Nuclear Power Plant," Commission Paper SECY-16-0138 (Dec. 6, 2016) (ML16333A309); *see also* Memorandum from William M. Dean, Director, Office of Nuclear Reactor Regulation, to the Commission (Nov. 28, 2016) (ML16330A117).

[13] Staff Requirements — SECY-16-0138 — Request for Authorization to Issue Renewed Full-Power Facility Operating License for Fermi 2 Nuclear Power Plant (Dec. 14, 2016) (ML16349A553); Letter from David E. Roth, Counsel for NRC Staff, to the Administrative Judges (Dec. 16, 2016) (ML16351A458); Letter from Lois M. James, NRC, to Keith Polson, DTE (Dec. 15, 2016) (ML16351A459). Our authorization reflected no judgment on CRAFT's motion to reopen. *See* 10 C.F.R. § 54.31(c); *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-08-13, 67 NRC 396, 400 (2008) ("A license renewal may be set aside (or appropriately conditioned) even after it has been issued, upon subsequent administrative or judicial review.").

[14] LBP-17-1, 85 NRC at 12.

posed new contention.[15] CRAFT now petitions for review of the Board's decision. DTE and the Staff oppose the petition and argue that CRAFT has not raised a substantial question for review under 10 C.F.R. § 2.341(b)(4).[16]

II. DISCUSSION

We may grant a petition for review of a licensing board decision at our discretion, giving due weight to the existence of a substantial question with respect to the following considerations:

(1) a finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;

(2) a necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;

(3) a substantial and important question of law, policy, or discretion has been raised;

(4) the conduct of the proceeding involved prejudicial procedural error; or

(5) any other consideration that we may deem to be in the public interest.[17]

We will defer to licensing board determinations on threshold matters, including rulings on motions to reopen, absent error of law or abuse of discretion.[18]

After a record has closed, or a proceeding has terminated, finality attaches to the hearing process.[19] Our rules therefore place a heavy burden on those filing a motion to reopen a closed record under 10 C.F.R. § 2.326 of our rules

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[15] *See id.* at 8-9.

[16] DTE Electric Company Answer Opposing CRAFT Petition for Review of LBP-17-01 (Feb. 28, 2017), at 1; NRC Staff Answer to CRAFT's Petition for Review of LBP-17-01 (Feb. 28, 2017), at 2. CRAFT filed a reply to DTE's and the Staff's answers. Citizens' Resistance at Fermi 2 (CRAFT) Combined Reply to NRC Staff and DTE Answers to CRAFT Petition for Review of LBP-17-01 (Mar. 9, 2017).

[17] 10 C.F.R. § 2.341(b)(4)(i)-(v).

[18] *See Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC 704, 710, 713-14 (2012); *see also Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-6, 75 NRC 352, 361, 368-72 (2012).

[19] *See* Final Rule, Criteria for Reopening Records in Formal Licensing Proceedings, 51 Fed. Reg. 19,535, 19,539 (May 30, 1986) ("The purpose of this rule is not to foreclose the raising of important . . . issues, but to ensure that, once a record has been closed and all timely-raised issues have been resolved, finality will attach to the hearing process.").

of practice.[20] The motion must 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."[21] And the motion must be timely, although there is a timeliness exception for motions that present an issue that is "exceptionally grave."[22]

The level of support required for a motion to reopen is greater than that required for a contention under the general admissibility requirements of 10 C.F.R. § 2.309(f)(1). The motion to reopen "must be accompanied by affidavits that set forth the factual and/or technical bases for the movant's claim that the . . . [reopening criteria] have been satisfied."[23] "Evidence contained in [the] affidavits must meet the [evidence] admissibility standards [in 10 C.F.R. § 2.337]."[24] That is, it must be "relevant, material, and reliable."[25] Further, the "[a]ffidavits must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised."[26] Additionally, a motion to reopen that pertains to a new contention must also meet the timeliness requirements in 10 C.F.R. § 2.309(c) and show that the new contention is admissible.[27] All of these requirements must be met for a motion to reopen to be granted.[28]

The Board denied CRAFT's motion to reopen for two independent reasons.[29] The Board first found that there was a fundamental flaw in CRAFT's challenge to the SAMA analysis — namely, that CRAFT had asserted that the analysis took too much credit for the effectiveness of the distribution of potassium iodide tablets in the emergency planning zone when in fact the SAMA analysis had taken no credit at all for potassium iodide distribution.[30] According to the Board, due to this flaw in the underlying premise of the contention, CRAFT had not demonstrated that a materially different result would have been likely had

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[20] *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 287 (2009).

[21] 10 C.F.R. § 2.326(a)(2)-(a)(3).

[22] *Id.* § 2.326(a)(1).

[23] *Id.* § 2.326(b).

[24] *Id.*

[25] *Id.* § 2.337(a).

[26] *Id.* § 2.326(b).

[27] *Id.* §§ 2.309(c)(4), 2.326(d).

[28] *See id.* § 2.326; *see also Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-12-3, 75 NRC 132, 143-44 (2012).

[29] *See* LBP-17-1, 85 NRC at 8-9.

[30] *See id.* at 10-11 & n.43 (citing DTE December 2016 Answer, Attachs. 1-2) (observing that the input parameter for potassium iodide was set to "NOKI," which meant that the calculation of severe accident consequences assumed that resulting doses were not mitigated by potassium iodide ingestion).

CRAFT's proffered information on potassium iodide distribution been considered initially and therefore CRAFT's motion did not meet the requirements of section 2.326(a)(3).[31] Second, the Board found that CRAFT had not provided an affidavit with its motion.[32] Although CRAFT had claimed that its motion presented a legal issue that did not require an affidavit, the Board determined that CRAFT's challenge to the SAMA analysis raised a factual issue, thus requiring an affidavit under section 2.326(b).[33]

In briefing before the Board, CRAFT also claimed that the SAMA analysis was faulty for not taking credit for potassium iodide distribution.[34] The Board found that CRAFT had improperly raised this argument for the first time in its reply, and therefore the Board did not consider it.[35] CRAFT also asserted that it had raised an environmental justice issue concerning a purported disparity in the distribution of potassium iodide in the Canadian, as compared to the American, portion of the emergency planning zone.[36] According to CRAFT, there is a higher rate of potassium iodide distribution in the Canadian portion of the emergency planning zone.[37] But the Board found that CRAFT's "brief reference to environmental justice" was provided not as a stand-alone environmental justice contention, but rather "solely as a potential implication of its proposed new [SAMA] contention."[38] Because CRAFT had not explained how the claimed disparity in potassium iodide distribution between the United States and Canada would materially alter the SAMA analysis, the Board found that it did not change the Board's decision to deny the motion.[39]

In its petition for review, CRAFT argues that the Board's ruling "relies primarily on procedural and technical arguments to counter the validity of the premise of CRAFT's new contention."[40] As described above, however, the Board applied the standards for reopening a closed record in section 2.326 and found that CRAFT had not met them. CRAFT has not pointed to any error or abuse of discretion in the Board's application of our rules of practice.

Although CRAFT initially styled its proposed new contention as a challenge to the SAMA analysis, CRAFT's later filings have expressed concerns with DTE's Emergency Planning efforts and assert that "carving out the vital issue

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[31] *Id.* at 10-11.

[32] *Id.* at 11.

[33] *Id.*

[34] *See* CRAFT December 2016 Reply at 3, 6.

[35] LBP-17-1, 85 NRC at 11-12.

[36] CRAFT December 2016 Reply at 6-7; New Contention at 10.

[37] New Contention at 10.

[38] LBP-17-1, 85 NRC at 12.

[39] *Id.*

[40] Petition for Review at 3.

of emergency preparedness from a license renewal proceeding is arbitrary and capricious, and makes for a wholly disingenuous agency review."[41] As CRAFT acknowledged in its proposed contention and the Board noted in its decision, emergency planning issues are outside the scope of the proceeding.[42] Emergency planning issues, however, are addressed as part of the agency's continuing oversight of licensees.[43] If CRAFT wishes to challenge DTE's ongoing compliance with NRC emergency planning requirements, it may file a request for action under 10 C.F.R. § 2.206.[44] With respect to this license renewal proceeding, however, CRAFT has not raised a substantial question that would warrant review of the Board's decision.

III. CONCLUSION

CRAFT has not raised a substantial question that warrants our review of LBP-17-1. We therefore *deny* the petition for review.

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 26th day of April 2017.

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[41] *Id.*

[42] New Contention at 7; LBP-17-1, 85 NRC at 11 n.44 (citing 10 C.F.R. § 50.47(a)(1)(i)).

[43] *See Florida Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9-10 (2001); *see also Dominion Nuclear Connecticut, Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560-61 (2005).

[44] 10 C.F.R. § 2.206 (providing that "[a]ny person may file a request to institute a proceeding pursuant to [10 C.F.R.] § 2.202 to modify, suspend, or revoke a license, or for any other action as may be proper"); *see also Millstone,* CLI-05-24, 62 NRC at 563.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William M. Dean, Director

In the Matter of	**Docket Nos. 50-247** **50-286** **(License Nos. DPR-26,** **DPR-64)**
ENTERGY NUCLEAR OPERATIONS, INC., ENTERGY NUCLEAR INDIAN POINT 2, LLC, and ENTERGY NUCLEAR INDIAN POINT 3, LLC **(Indian Point Nuclear Generating Units 2 and 3)**	**April 13, 2017**

By letter dated June 30, 2016, as supplemented by letter dated January 10, 2017, Mr. David A. Lochbaum of the Union of Concerned Scientists, filed a petition under Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206, requesting enforcement action against Entergy Nuclear Operations Inc., the Licensee for Indian Point Nuclear Generating (Indian Point) Unit Nos. 2 and 3. Citing degradation of reactor vessel baffle-former bolts (BFBs) identified at Indian Point Nuclear Generating Unit No. 2 during its spring 2016 refueling outage, the Petitioner requested that the NRC take the following enforcement actions:

(1) Issue an order requiring the Licensee to inspect the reactor vessel BFBs and install the downflow-to-upflow modification at Indian Point Unit No. 2 during its next refueling outage.

(2) Issue a demand for information requiring the Licensee to submit an operability determination to the NRC regarding continued operation of Indian Point Unit No. 3 until its reactor vessel BFBs could be inspected according to Electric Power Research Institute Materials Reliability Pro-

gram (MRP) Topical Report MRP-227-A, "Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines" (ADAMS Package Accession No. ML120170453).

(3) Issue a demand for information requiring the Licensee to submit an evaluation of the performance, role, and operating experience of the Indian Point metal impact monitoring system in detecting and responding to indications of loose parts (such as broken baffle bolt heads and locking tab bars) within the reactor coolant system.

By letter dated January 10, 2017, the Petitioner withdrew the first two requested enforcement actions, citing commitments made by the Licensee for future BFB inspections in the plant closure agreement and information regarding the Unit No. 3 operability determination released as a result of a Freedom of Information Act request. In the Licensee's letter that provided comments to the proposed director's decision dated February 9, 2017, the Licensee informed the Staff that it had changed its commitment and would not perform the downflow-to-upflow modification for either Indian Point Unit No. 2 or 3.

In Director's Decision DD-17-1, the Director of the Office of Nuclear Reactor Regulation determined that the Petitioner's request to (1) issue an order requiring that Indian Point Unit No. 2 inspect the BFBs during the spring 2018 refueling outage be denied because the Licensee committed to take this action, and the NRC Staff retains the option to take enforcement actions if necessary; (2) issue a demand for information requiring Indian Point Unit No. 3 to perform an operability determination was effectively met, inasmuch as the Licensee performed the evaluation and made it available to NRC inspectors as part of the NRC's Reactor Oversight Program; and (3) issue a demand for information requiring the Licensee to provide an evaluation of the operating history of the metal impact monitoring system be denied because the system has no operability or regulatory requirements; the loose BFB heads would be expected to remain in place due to the tight clearances between the baffle plate and fuel assemblies, making bolt failures very difficult to monitor using this system; and the Staff finds no basis to require such information for a nonsafety system.

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

I. INTRODUCTION

By letter dated June 30, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16187A186), as supplemented by letter dated January 10, 2017 (ADAMS Accession No. ML17011A012), Mr.

David A. Lochbaum, Director of the Nuclear Safety Project at the Union of Concerned Scientists, filed a petition pursuant to Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206, "Requests for Action Under This Subpart." Citing degradation of reactor vessel baffle-former bolts (BFBs) identified at Indian Point Nuclear Generating Unit No. 2 during its spring 2016 refueling outage, the Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC or the Commission) take the following enforcement actions against Entergy Nuclear Operations, Inc. (Entergy), the Licensee for Indian Point Nuclear Generating Units No. 2 and 3 (Indian Point 2 and 3):

(1) Issue an order requiring the Licensee to inspect the reactor vessel BFBs and install the downflow-to-upflow modification at Indian Point 2 during its next refueling outage.

(2) Issue a demand for information requiring the Licensee to submit an operability determination to the NRC regarding continued operation of Indian Point 3 until its reactor vessel BFBs can be inspected according to the Electric Power Research Institute (EPRI) Materials Reliability Program (MRP) Topical Report, "Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-A)," Final Report, December 2011 (ADAMS Package Accession No. ML120170453).

(3) Issue a demand for information requiring the Licensee to submit an evaluation of the performance, role, and operating experience of the Indian Point metal impact monitoring system in detecting and responding to indications of loose parts (such as broken baffle bolt heads and locking tab bars) within the reactor coolant system.

As the basis for this request, the Petitioner cited Licensee Event Report 2016-004-00, "Unanalyzed Condition Due to Degraded Reactor Baffle-Former Bolts," submitted by the Licensee on May 31, 2016 (ADAMS Accession No. ML16159A219), that describes an event that involved an unanalyzed condition due to degraded reactor vessel BFBs at Indian Point 2, which is reportable under 10 C.F.R. § 50.73(a)(2)(ii)(B). The Petitioner states that (1) an order is the proper means for ensuring that the bolts are inspected and that the downflow-to-upflow modification is installed during the next refueling outage at Indian Point 2, (2) Indian Point 3 is potentially operating with degraded BFBs and an operability determination is the mechanism established by the NRC to properly evaluate such situations, and (3) the metal impact monitoring system as described in the updated final safety analysis report has the potential to act as an alternate monitoring system to identify degraded BFBs, yet neither the NRC nor the Licensee has referred to this system in publicly available documents relating to this issue.

The Petitioner met with the Office of Nuclear Reactor Regulation (NRR)

Petition Review Board on July 28, 2016, to clarify the bases for the petition. The NRC is treating the transcript of this meeting (ADAMS Accession No. ML16215A391) as a supplement to the petition. In a letter dated September 7, 2016 (ADAMS Accession No. ML16231A140), the NRC informed the Petitioner that the agency accepted the petition for review under 10 C.F.R. § 2.206 and that the agency had referred the issues in the petition to NRR for appropriate action.

In the supplemental letter dated January 10, 2017, the Petitioner reduced the scope of the petition by withdrawing requested enforcement actions 1 and 2 identified above. Citing the plant closure agreement between Entergy and the State of New York to shut down both units in the 2020-2021 time frame, the Petitioner noted that Entergy committed to inspect the reactor vessel BFBs at Indian Point Nuclear Generating Unit No. 2 and Unit No. 3 (Indian Point 2 or Indian Point 3) during their spring 2018 and 2019 refueling outages, respectively. While the plant closure agreement was silent with respect to the downflow-to-upflow modification, the Petitioner concluded that the additional inspections, combined with the shortened plant life, diminished the need for an order. In addition, citing documents released via a recent Freedom of Information Act request (FOIA/PA-2016-0457), the Petitioner concluded that sufficient information regarding operability of Indian Point 3 was available to justify withdrawing the request for a demand for information for an operability determination. Nonetheless, while recognizing that the NRC Staff's responses to these requested actions are now moot, they are being included in this Director's Decision in order to share and document the regulatory basis for the Staff's decisionmaking regarding these two requested enforcement actions.

The NRC sent the proposed director's decision to both the Petitioner and the Licensee by letters dated January 11, 2017 (ADAMS Accession Nos. ML16320A269 and ML16320A273, respectively). The Petitioner and the Licensee were provided the opportunity 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. The Petitioner provided comments by letter dated January 19, 2017 (ADAMS Accession No. ML17024A201), and the Licensee provided comments by letter dated February 9, 2017 (ADAMS Accession No. ML17045A470). The Licensee's response included new information that was not available to the NRC Staff when the proposed director's decision was issued for comment. The Licensee provided results of the BFB failure analysis performed at the Westinghouse hot lab testing facility, along with details of its enhanced BFB inspection plans for the remaining refueling outages at Indian Point 2 and 3. Furthermore, the Licensee informed the Staff that it was withdrawing its previous commitment to implement the downflow-to-upflow modification at both units. The comments from the Petitioner and

the Licensee resulted in changes to the proposed director's decision and are summarized in the attachment to this Final Director's Decision.

Documents referenced in this Director's Decision are available for inspection at the NRC's Public Document Room (PDR), located at O1F21, 11555 Rockville Pike (first floor), Rockville, MD 20852. Publicly available documents created or received at the NRC are accessible electronically through ADAMS in the NRC Library at http://www.nrc.gov/reading-rm/adams.html. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC's PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737, or by e-mail at pdr.resource@nrc.gov.

II. DISCUSSION

Reactor vessel internals are structures located within the reactor vessel that support and orient the reactor fuel assemblies and direct coolant flow through the core. The core baffle is part of the internal structure, which consists of vertical plates that surround the outer faces of the peripheral fuel assemblies. The baffle directs coolant flow through the core. The vertical plates are bolted to the edges of horizontal former plates that are bolted to the inside surface of the core barrel. There are typically eight levels of former plates located at various elevations within the core barrel. The bolts that secure the baffle plates to the former plates are referred to as BFBs. Furthermore, the core design can be configured such that reactor coolant flow between the core barrel and the baffle goes either up or down, which is referred to as upflow or downflow, respectively. Some plants have converted from the downflow to the upflow configuration at some point in their operating history.

European plants first identified cracking of BFBs as early as 1988. The NRC published Information Notice No. 98-11, "Cracking of Reactor Vessel Internal Baffle Former Bolts in Foreign Plants," dated March 25, 1998 (ADAMS Legacy Accession No. 9803230106), alerting the U.S. nuclear industry to the issue. Domestic licensees are currently performing ultrasonic testing (UT) examinations of BFBs for license renewal commitments in accordance with EPRI Topical Report MRP-227-A. The NRC Staff has approved the use of MRP-227-A for meeting license renewal commitments for the aging management of reactor vessel internals. In addition, inspections of core support structures are conducted at 10-year intervals in accordance with American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components."

In response to a license renewal commitment associated with the timely renewal provisions of 10 C.F.R. Part 54, the Licensee for Indian Point 2 performed visual inspections and UT examinations of the BFBs during its spring 2016 re-

fueling outage. The examinations identified significant degradation of BFBs, and the Licensee concluded that the plant was in an unanalyzed condition. The Licensee's findings were reportable under 10 C.F.R. § 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors," and 10 C.F.R. § 50.73, "Licensee Event Report System." In LER 2016-004-00, the Licensee stated the following:

> Indian Point Unit 2 (IP2) was shut down as scheduled on March 7th, 2016 to implement the 2R22 refueling outage. As part of the IP2 License Renewal process, Entergy committed to performing inspections of the reactor vessel internal components during the 2R22 refueling outage. The NRC has approved EPRI Technical Report MRP-227-A, "Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines," as an acceptable vehicle for performing aging-related inspections and evaluations of applicable reactor components. One set of components inspected under MRP-227-A were the baffle-former bolts through visual inspection (VT) and ultrasonic (UT) examination.
>
> The IP2 baffle structure includes 832 baffle-former bolts which attach the baffle plates to the former plates. Of the 832 baffle-former bolts, 227 either failed to meet acceptance criteria or could not be UT inspected. The UT inspection identified indications on 182 bolts, 14 were incapable of being UT inspected and were thus conservatively assumed to have failed; and 31 bolts failed the VT. The failed baffle-former bolts are distributed throughout the vertical baffle plates with more failures found in the upper portion of the plates and more concentrated on some of the plates than others (the failures are clustered).
>
> The 227 failed bolts and the pattern of failure did not meet the acceptance criteria for plant startup from the 2R22 refueling outage which had been provided by Westinghouse prior to the outage in an analysis of the baffle-former assembly in WCAP-18048-P. The consequence of this is that baffle-former bolt replacements were required to be completed prior to returning IP2 back to service.

The Licensee's findings were entered in its corrective action program as Condition Reports CR-IP2-2016-02081 and CR-IP2-2016-02348. The Licensee described the following corrective actions in LER 2016-004-00:

- In addition to replacing the 227 BFBs found to be either degraded or untestable, the Licensee replaced an additional 49 BFBs to prevent bolting pattern failures due to clustering. Furthermore, an additional 2 BFBs were replaced during replacement activities. Thus, a total of 278 of the original 832 BFBs were replaced. The new BFBs were made from Type 316 stainless steel as opposed to the Type 347 stainless steel that comprised the original BFBs.

- A number of BFBs with UT indications were shipped to a laboratory for failure analysis.
- The Licensee committed to perform inspections of the BFBs during its next refueling outage (2R23) scheduled for spring 2018.
- The Licensee committed to modify the reactor vessel internals to convert the core from a downflow to an upflow plant configuration during the 2R23 refueling outage.
- The Licensee committed to replace additional BFBs during the 2R23 refueling outage to meet minimum bolting patterns as evaluated by Westinghouse.

In response to the Indian Point 2 bolt degradation, the NRC conducted a range of baseline Reactor Oversight Process inspections to independently assess the adequacy of visual and ultrasonic bolt examinations, observe bolt replacement activities, and review Entergy's evaluations of Indian Point 2 and 3 corrective actions. In addition, Entergy performed an operability determination to evaluate the impact of BFB degradation at Indian Point 3. NRC inspectors reviewed Entergy's evaluations and concluded that these evaluations provide reasonable assurance that the Indian Point 3 baffle bolts will perform as required until the planned refueling outage in spring 2017, at which time Entergy plans to examine the bolts. The results of the NRC's inspections are found in Integrated Inspection Report 05000247/2016002 and 05000286/2016002, dated August 30, 2016 (ADAMS Accession No. ML16243A245).

The NRC Staff has reviewed recently identified degradation of reactor vessel BFBs at operating reactors. In accordance with NRR Office Instruction LIC-504, Revision 4, "Integrated Risk-Informed Decision-Making Process for Emergent Issues," effective June 2, 2014 (ADAMS Accession No. ML14035143), the Staff performed a risk-informed evaluation of the safety significance of recently identified reactor vessel BFB degradation, documented in a review dated October 20, 2016 (ADAMS Accession No. ML16225A341). As discussed in that review, the Staff identified the facilities of greatest concern, assessed the need for immediate shutdown of those facilities, and prepared available options based upon currently known information. Based on a review of operating experience, the Staff concluded that the potential for significant bolt degradation is most susceptible at Westinghouse four-loop designs with a downflow configuration and Type 347 stainless steel bolts, which include Indian Point 2 and 3. The Staff also concluded that the degradation of BFBs does not represent an imminent safety hazard and, as a result, immediate plant shutdowns to inspect and repair degraded BFBs are not necessary. Furthermore, it was the Staff's overall recommendation that the plants most susceptible to BFB degradation be permitted to operate until their next scheduled refueling outage, at which time

they will perform visual and UT inspections of the BFBs, because the risk of core damage from BFB degradation over this time period was found to be low. It should be noted, however, that bolt failures have been detected in other types of material, and the NRC Staff has been, and continues to be, engaged with industry to better understand this phenomenon as discussed below.

The NRC Staff has been actively working with the EPRI MRP working group to better understand the safety significance of BFB degradation and the extent of this condition within the industry. A public meeting was held on July 19, 2016, with representatives of the EPRI MRP working group, industry, and the NRC Staff to discuss recent inspections and operating experience of BFB degradation. The meeting summary and meeting handouts can be found in ADAMS under Package Accession No. ML16208A001. Subsequent guidance from both Westinghouse and the EPRI MRP working group recommended BFB inspections at the next scheduled refueling outage for those plants identified as having the greatest susceptibility for BFB degradation.

In summary, the NRC Staff has concluded that BFB degradation observed at operating facilities to date, including Indian Point 2, does not represent an immediate safety concern and does not warrant regulatory action at this time. Industry guidance documents identify those facilities having the greatest susceptibility for BFB degradation, which include both Indian Point 2 and 3, and recommend that they inspect their reactor vessel BFBs during their next scheduled refueling outage. The Staff will continue to monitor BFB inspections and will retain the option of taking regulatory action as warranted.

A. Actions Requested by the Petitioner

The following enforcement actions were requested by the Petitioner:

1. The Petitioner requested that the NRC issue an order requiring the Indian Point Licensee to inspect the reactor vessel BFBs and to install the downflow-to-upflow modification on Indian Point 2 during its next refueling outage.

NRC Response

Based on a review of operating experience, the potential for significant BFB degradation is currently believed to be most susceptible at Westinghouse four-loop designs with a downflow configuration and Type 347 stainless steel bolts. Westinghouse Technical Bulletin TB-12-5, "Baffle Bolt Degradation in a Westinghouse NSSS [Nuclear Steam Supply System] Plant with Downflow Reactor Internal Design," dated March 7, 2012, following the operating experience

at Donald C. Cook Nuclear Plant (D.C. Cook), Unit No. 2, identified seven operating reactors that were considered most susceptible to BFB degradation: Indian Point 2 and 3; Salem Nuclear Generating Station (Salem), Units No. 1 and 2; D.C. Cook, Units No. 1 and 2; and Diablo Canyon Nuclear Power Plant, Unit No. 1. The NRC Staff confirmed the bolt material as Type 347 stainless steel for all of these plants. Westinghouse Nuclear Safety Advisory Letter (NSAL) 16-1,[1] Revision 1, "Baffle-Former Bolts," dated August 1, 2016 (ADAMS Accession No. ML16222A513), issued in response to the experience at Indian Point 2 and Salem Unit No. 1, identifies the same seven plants as being most susceptible to BFB cracking. NSAL 16-1 classifies the seven 4-loop downflow plants with Type 347 bolts as "Tier 1a." EPRI MRP Letter 2016-022, dated July 27, 2016 (ADAMS Accession No. ML16211A054), transmits interim guidance that recommended that all plants identified as Tier 1a plants in Westinghouse NSAL 16-1 conduct UT examinations of all BFBs at the next scheduled refueling outage. This guidance is classified as "needed," as defined in the protocol of Nuclear Energy Institute 03-08, Revision 2, "Guideline for the Management of Materials Issues," issued January 2010 (ADAMS Accession No. ML101050337). The identification of the most susceptible group of plants to BFB cracking in NSAL 16-1 and MRP Letter 2016-022 is consistent with the Staff's assessment based on its review of operating experience as previously described in the Staff's risk-informed evaluation performed in accordance with LIC-504. It should be noted that if any licensee in the most susceptible group (i.e., Tier 1a, which includes Indian Point 2) intends to deviate from the EPRI MRP interim guidance, the NRC would be notified and could take regulatory action to ensure that the licensee performs UT examinations at the next refueling outage.

In the proposed director's decision, the NRC Staff proposed to deny the Petitioner's request to issue an order requiring the Licensee to inspect the BFBs and implement the downflow-to-upflow modification during the next refueling outage at Indian Point 2. The basis for the Staff's decision was that (1) the Licensee committed to take these actions; (2) industry guidance documents recommended inspection of BFBs; (3) any changes to these commitments would need to be justified in accordance with 10 C.F.R. Part 50, "Domestic Licensing of Production and Utilization Facilities," Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," Criterion XVI,

[1] Westinghouse NSAL 16-1 was issued to Westinghouse pressurized-water reactor owners to provide a 10 C.F.R. Part 21, "Reporting of Defects and Noncompliance," evaluation and recommendations in response to recent BFB degradation. The NRR staff has not reviewed the engineering analyses supporting the evaluation in NSAL 16-1 or endorsed its conclusions or methods. The letter is discussed in this Director's Decision only to provide context to the NRC Staff's own engineering judgment in evaluating potential risk and regulatory options.

"Corrective Action," and would be inspectable by NRC inspectors; and (4) the NRC retained the option of taking enforcement action as necessary. At approximately the same time that the proposed director's decision was issued for comment, the Licensee entered a plant shutdown agreement with the State of New York where Indian Point 2 and 3 would permanently shut down in April 2020 and 2021, respectively. In the plant shutdown agreement, the Licensee committed to inspect the BFBs for both Indian Point 2 and 3 during the 2018 and 2019 refueling outages, respectively. Subsequently, in his letter of January 10, 2017, the Petitioner withdrew his request for this enforcement action. While the Petitioner recognized that the plant shutdown agreement was silent on the downflow-to-upflow modification, the Petitioner concluded that the additional BFB inspections should protect against degradation during the shortened period of reactor operation. Finally, in response to the proposed director's decision, the Licensee (1) described its enhanced BFB inspection plans for future refueling outages at Indian Point 2 and 3, (2) described the results of the BFB failure analysis performed at the Westinghouse hot lab testing facility, and (3) informed the Staff that it had changed its commitment and would not implement the downflow-to-upflow modification at Indian Point 2 and 3.

Based upon the Licensee's commitment to inspect the BFBs, the industry's recommended guidance to inspect the BFBs for the Tier 1a plants during the next refueling outage, and the plant shutdown agreement that reduces the period of plant operation as described above, the NRC Staff does not plan to take enforcement action to make the commitment legally binding. Therefore, absent the Petitioner's withdrawal, the NRC would have denied the Petitioner's request.

2. The Petitioner requested that the NRC issue a demand for information requiring the Indian Point Licensee to submit an operability determination to the agency regarding continued operation of Indian Point 3 until its baffle bolts can be inspected according to the guidance of MRP-227-A.

NRC Response

The Petitioner referred to (1) the Licensee's LER-2016-004-00, in which the Licensee concluded that the BFB degradation at Indian Point 2 represented an unanalyzed condition, and (2) NRC Inspection Manual Chapter 0326, "Operability Determinations & Functionality Assessments for Conditions Adverse to Quality or Safety," dated December 3, 2015 (ADAMS Accession No. ML15328A099), which identifies those circumstances in which an operability determination is required. Inspection Manual Chapter 0326, paragraph 04.05, "Circumstances Warranting Operability Determinations," requires an operability determination upon "discovery of an unanalyzed condition." The Petitioner

asserts that, since Indian Point 3 is constructed of nearly identical materials, has been exposed to nearly identical environmental conditions, and has operated for nearly the same amount of time as Indian Point 2, Indian Point 3 is vulnerable to similar BFB degradation and, therefore, should be considered to be in an unanalyzed condition, thus necessitating an operability determination.

On July 11, 2016, Entergy staff completed an operability evaluation, which assumed an estimated number of BFB failures based on the degradation found in Indian Point 2 and was adjusted to take credit for the small number of inaccessible bolts and a sample of bolts extracted with high removal torque that indicated residual structural capacity. NRC inspectors determined that this estimated number of bolt failures was conservative, because the evaluation did not credit the baffle-edge bolts or the differences in operational history between the two units, such as neutron fluence levels or fatigue from thermal cycles. The operability evaluation concluded that the Indian Point 3 BFBs would perform as intended to secure the baffle plates from being dislodged. The inspectors concluded that Entergy's operability evaluation provided an appropriate basis to conclude that the Indian Point 3 baffle assembly would support emergency core cooling system operability until the planned Indian Point 3 refueling outage in spring 2017.

At about the same time that the proposed director's decision was issued for comment, the Petitioner submitted his letter of January 10, 2017, that withdrew this requested enforcement action. The Petitioner cited the recent release of documents from a Freedom of Information Act request (FOIA/PA-2016-0457) that diminished the need for a demand for information.

In summary, the Licensee performed the operability determination that the Petitioner requested. The operability determination was available for NRC review, and NRC inspectors concluded that Entergy's operability evaluation provided appropriate basis to conclude that the Indian Point 3 baffle assembly would support emergency core cooling system operability until the planned Unit No. 3 refueling outage in spring 2017. Therefore, inasmuch as the Licensee has performed the operability determination and the NRC Staff has reviewed it, the Petitioner's request was effectively met.

3. The Petitioner requested that the NRC issue a demand for information requiring the Indian Point Licensee to submit an evaluation of the performance, role, and operating experience of the metal impact monitoring system in detecting and responding to indications of loose parts (such as broken bolt heads or locking tab bars) within the reactor coolant system.

NRC Response

The Indian Point updated final safety analysis report describes the metal impact monitoring system (often referred to as the loose parts monitoring system) as a system for enabling the early detection of any debris, detached internal structural items, and hardware present in the reactor coolant system. Metal impact monitoring is accomplished by the installation of specially developed transducers mounted on the exterior of the reactor coolant system and steam generators. Monitoring points normally in use during plant operation are at the top and bottom of the reactor vessel and above and below each steam generator tube sheet. The metal impact monitoring system is not a safety-related system and has no operability requirements in the technical specifications. Furthermore, there are no requirements or expectations for the Licensee to submit periodic evaluations of the performance, role, or operating experience of the system for NRC or public consideration.

The Petitioner identified a 1998 Westinghouse safety evaluation, 98-115-EV-1, Revision 1, "Loose Parts Evaluation — Residual Heat Removal Valve Parts" (in ADAMS Package Accession No. ML993610326), that reported that the metal impact monitoring system at Indian Point 2 detected a small metal part weighing less than 2 ounces in the reactor vessel lower plenum. The Petitioner further noted that broken locking tabs or bolt heads would be similarly sized small metal parts that, by implication, should be detectable by the metal impact monitoring system. However, the Petitioner noted that neither the Indian Point Licensee nor the NRC refers to the metal impact monitoring system as an alternate, available means to provide early detection of degraded BFBs and locking tabs within the reactor coolant system. As a result, the Petitioner requested an evaluation of the metal impact monitoring system performance history because the system does not appear to be adequately performing its intended monitoring function.

Failure or degradation of BFBs may result in loose parts in the form of broken bolt heads and locking bars. It should be noted that the clearances between the baffle plates and peripheral fuel assemblies are sufficiently small such that broken bolt heads are not likely to become loose parts within the reactor coolant system unless the fuel is removed. Therefore, if a bolt head fractures at the head-to-shank transition and separates from the bolt shank, the bolt head is not expected to fall out of its location, even if the locking bar fails. A bolt head trapped in the gap could only cause fretting of the adjacent cladding. Localized fuel cladding damage caused by fretting can also be detected by monitoring reactor coolant activity. With regard to baffle plates, no displacement of baffle plates has been observed due to BFB degradation. Detached baffle plates would constitute a large loose part, but the potential for these plates to travel is not credible because of the small clearances between the plates and the fuel assemblies.

As previously stated, the metal impact monitoring system is not a safety system and it has no operability or regulatory requirements. As a result, there are no minimal performance criteria relative to identifying small metal loose parts within the reactor coolant system. It is the NRC Staff's position that the metal impact monitoring system has limited effectiveness for detecting BFB degradation and should not be considered as an alternate means for monitoring BFB performance online. It has not been the NRC's past practice to require licensees to provide evaluations of system performance or operating experience for nonsafety systems. Furthermore, the Staff has not identified a basis to make an exception to past practice and issue a demand for information as requested by the Petitioner. Therefore, the Petitioner's request to issue a demand for information relative to the operating performance and history of the metal impact monitoring system is denied.

III. CONCLUSION

The Petitioner requested that the NRC take enforcement actions against the Indian Point Licensee relative to the emergent issue of BFB degradation within the reactor vessel. Subsequent to issuing the proposed director's decision for comment, the Petitioner withdrew his request that the NRC issue an order requiring the Licensee to inspect the Indian Point 2 BFBs and implement the downflow-to-upflow modification during the spring 2018 refueling outage. In addition, the Licensee withdrew its previous commitment to implement the downflow-to-upflow modification for both Indian Point 2 and 3. Nonetheless, the NRC would have denied this request because the Licensee has committed to inspect the BFBs and the Staff would still retain the option to take enforcement actions if necessary. While the Petitioner also withdrew his request for a demand for information requiring the Licensee to perform an operability determination for Indian Point 3, this request was effectively met inasmuch as the Licensee performed the evaluation and made it available to NRC inspectors as part of the NRC's reactor oversight program. Finally, the NRC denied the Petitioner's request for the NRC to issue a demand for information requiring the Licensee to provide an evaluation of the operating history of the metal impact monitoring system because the system has no operability or regulatory requirements, loose BFB heads would be expected to remain in place due to the tight clearances between the baffle plate and fuel assemblies, thus making bolt failures very difficult to monitor using this system, and the NRC finds no basis to require such information for a nonsafety system.

As provided in 10 C.F.R. § 2.206(c), the NRC will file a copy of this Director's Decision with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the Decision will constitute the

final action of the Commission 25 days after the date of the Decision unless the Commission, on its own motion, institutes a review of the Decision within that time.

FOR THE NUCLEAR REGULATORY COMMISSION

William M. Dean, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 13th day of April 2017.

ATTACHMENT

COMMENTS ON THE PROPOSED DIRECTOR'S DECISION

Comments from the Petitioner

Comments were received from the Petitioner by letter dated January 19, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17024A201).

1. The Petitioner raised timeliness concerns by noting the following:

   (a) Page 4 of the proposed director's decision states that the degradation of baffle-former bolts (BFBs) was first identified in Europe in 1988, but it took the U.S. Nuclear Regulatory Commission (NRC) 10 years to issue NRC Information Notice 98-11, "Cracking of Reactor Vessel Internal Baffle Former Bolts in Foreign Plants," dated March 25, 1998, that first notified the U.S. industry of this phenomena.

   (b) Page 4 of the proposed director's decision states that the industry's response to BFB degradation was via MRP-227-A, "Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-A)," in 2008, which was 10 years after issuance of NRC Information Notice 98-11.

   (c) Page 4 of the proposed director's decision states that the NRC approved use of MRP-227-A to address aging management issues for BFBs. The proposed director's decision did not mention that NRC approval of MRP-227-A in 2011 was 3 years after MRP-227-A was submitted, 13 years after issuance of NRC Information Notice 98-11, and 23 years after the problem was first identified in European reactors.

Response

The timeliness concerns noted by the Petitioner do not alter the overall conclusions and, therefore, do not require modification to the final director's decision.

2. The Petitioner commented that the NRC Staff provided sound and reasonable bases for its decisions in the proposed director's decision.

Response

The Petitioner's comments do not require modification to the final director's decision.

Comments from the Licensee

Comments were received from the Licensee by letter dated February 9, 2017 (ADAMS Accession No. ML17045A470).

The Licensee stated that the proposed director's decision provided a complete and generally accurate basis for its decisions. In its letter, the Licensee (1) described its enhanced BFB inspection plans for subsequent refueling outages, (2) summarized the failure analysis findings of BFBs examined at the Westinghouse hot lab testing facility, and (3) informed the NRC Staff that it no longer plans to implement the downflow-to-upflow modification for either unit as it had previously committed to do.

The Licensee stated that its enhanced BFB inspection plans included the following:

- The IP3 baffle bolt inspections previously scheduled to be performed in 3R20 (Spring 2019) will be performed in 3R19 (Spring 2017). Visual and UT inspections on 100% of all accessible baffle former bolts, and a visual inspection of the accessible baffle-edge bolts and baffle former assembly, will be performed in 3R19.
- Entergy will perform a UT inspection of 100% of the original bolts at IP2 and IP3 during each of the subsequent refueling outages if any of the original bolts are required to remain structurally capable of carrying their design load to ensure structural integrity of the baffle structure during all design conditions.
- Entergy will also perform a general visual inspection to identify anomalies in the baffle structure at IP2 and IP3 during each subsequent refueling outage.
- Entergy will perform a UT inspection of inservice replaced (new) bolts if the general visual inspections identify degraded new bolts.
- Entergy will replace all bolts with indications that are needed to remain structurally capable of carrying their design load to ensure structural integrity of the baffle structure during all design conditions. Additional "good" or anti-cluster bolts will also be replaced to ensure that sufficient margin is maintained to accommodate the same failure rate until the next inspection as the failure rate identified during the current refueling outage.

The Licensee provided the following information regarding the BFB failure analysis:

> As a corrective action to the BFB degradation identified at IP2 during the 2016 refueling outage, eight BFBs removed from the IP2 baffle structure during the 2016 outage were examined by the Westinghouse hot lab testing facility. The Westinghouse fractography examinations indicated that the cause of the IP2 baffle bolt failures was a complex combination of lntergranular Stress Corrosion Cracking, fatigue caused by cyclical loads, and ductile tearing/overload when the flaw reached a size where the remaining bolt ligament was insufficient to carry the remaining load. While the time from crack initiation to final bolt failure could not be precisely established, based on the oxides detected on the fracture surfaces, it is likely that the time period between crack initiation and final bolt failure occurred over several operating cycles.

Response

As concluded by both the Petitioner and the Licensee, the enhanced BFB inspections planned for the remaining refueling outages should provide sufficient protection, without implementing the downflow-to-upflow modification. The comments from the Licensee, most notably the change in commitment to implement the downflow-to-upflow modifications, resulted in changes to the proposed director's decision.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William M. Dean, Director

In the Matter of	**Docket Nos. 50-275** **50-323** **(License Nos. DPR-80,** **DPR-82)**
PACIFIC GAS & ELECTRIC COMPANY **(Diablo Canyon Nuclear Power Plant, Units 1 and 2)**	**April 21, 2017**

On August 26, 2014, Friends of the Earth (FOE or the Petitioner) filed a Petition to Intervene and Request for Hearing (Petition) concerning Diablo Canyon Nuclear Power Plant, Units 1 and 2 (DCPP). In this Petition, FOE claims that DCPP is violating its licensing basis, and therefore the plant's operational safety and its ability to safely shut down in the event of an earthquake caused by nearby faults is in question. The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC) take enforcement actions to ensure that DCPP can operate safely and demonstrate its ability to safely shut down in the event of an earthquake caused by nearby faults. As the basis for the request, the Petitioner states that the "NRC staff's determination that the new seismic information, including the Shoreline earthquake and its effect on the San Luis Bay and Los Osos faults, is a lesser-included case within the Hosgri earthquake is insufficient to insure that Diablo Canyon is operating safely with an adequate margin of safety."

The Commission, by a memorandum and order (CLI-15-14, 81 NRC 729) dated May 21, 2015, referred those concerns to the NRC's Executive Director for Operations for consideration under Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206, "Requests for Action Under This Subpart." Therefore, the NRC Staff treated these concerns in FOE's hearing request as a petition for enforcement action pursuant to 10 C.F.R. § 2.206.

On two occasions, the NRC offered FOE opportunities to address the Petition Review Board (PRB), which was established to review FOE's enforcement concerns. In response, on September 30, 2015, and February 8, 2016, FOE provided written submissions to the PRB in lieu of addressing the PRB in person or by telephone. The NRC Staff considered these submittals during its evaluation.

By letters to the Petitioner and the Pacific Gas and Electric Company (PG&E, the Licensee) dated February 28, 2017, the NRC issued the proposed director's decision for comment. The NRC Staff did not receive comments on the proposed director's decision from the Petitioner or the Licensee.

Subsequently, on April 21, 2017, the NRC issued a final Director's Decision. The NRC evaluated FOE's concerns, which the Commission referred to the Executive Director for Operations in CLI-15-14. The Commission determined in CLI-15-14 that there was no basis for immediate suspension of plant operations. During the NRC Staff's review of the issues referred to the Executive Director for Operations, it did not find that the continued operation of DCPP would adversely affect public health and safety. Therefore, the NRC denied the Petitioner's requested enforcement actions against the Licensee.

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

I. INTRODUCTION

On August 26, 2014, Friends of the Earth (FOE or the Petitioner) filed a Petition to Intervene and Request for Hearing (Petition)[1] concerning Diablo Canyon Nuclear Power Plant, Units 1 and 2 (DCPP). In this Petition, FOE claims that DCPP is violating its licensing basis, and therefore the plant's operational safety and its ability to safely shut down in the event of an earthquake caused by nearby faults are in question. The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC or Commission) take enforcement actions to ensure that DCPP can operate safely and demonstrate its ability to safely shut down in the event of an earthquake caused by nearby faults. As the basis for the request, the Petitioner states that the "NRC staff's determination that the new seismic information, including the Shoreline earthquake and its effect on the San Luis Bay and Los Osos faults, is a lesser-included case within the Hosgri earthquake is insufficient to insure that Diablo Canyon is operating safely with an adequate margin of safety."[2]

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[1] Agencywide Documents Access and Management System (ADAMS) Accession No. ML14254-A231.

[2] Petition at 47.

The Commission, by a memorandum and order (CLI-15-14) dated May 21, 2015,[3] referred those concerns to the NRC's Executive Director for Operations (EDO) for consideration under Title 10 of the *Code of Federal Regulations* (10 C.F.R.), section 2.206, "Requests for Action Under This Subpart." Therefore, the NRC Staff treated these concerns in FOE's hearing request as a petition for enforcement action pursuant to 10 C.F.R. § 2.206.

On two occasions, the NRC offered FOE opportunities to address the Petition Review Board (PRB), which was established to review FOE's enforcement concerns. In response, on September 30, 2015, and February 8, 2016,[4] FOE provided written submissions to the PRB in lieu of addressing the PRB in person or by telephone. The NRC Staff considered these submittals during its evaluation.

In a letter dated April 12, 2016,[5] the NRC informed FOE that its concerns met the criteria for acceptance for consideration provided in Management Directive (MD) 8.11, "Review Process for 10 C.F.R. 2.206 Petitions," dated October 25, 2000,[6] and that the NRC had referred the petition to the Office of Nuclear Reactor Regulation and the Office of New Reactors for appropriate action.

By letters to the Petitioner and the Pacific Gas and Electric Company (PG&E, the Licensee) dated February 28, 2017,[7] the NRC issued the proposed director's decision[8] for comment. The NRC Staff did not receive comments from the Petitioner or the Licensee.

II. DISCUSSION

Under 10 C.F.R. § 2.206(b), the director of the NRC office with responsibility for the subject matter shall either institute the requested proceeding to modify, suspend, or revoke a license, or advise the person who made the request in writing that no proceeding will be instituted, in whole or in part, with respect to the request and the reason for the decision. The Petitioner raised concerns about violations of DCPP's licensing basis, operational safety, and ability to safely shut down in the event of an earthquake associated with the Shoreline, San Luis Bay, or Los Osos faults.

At the time that FOE submitted this Petition in August 2014, the NRC Staff had dispositioned a Differing Professional Opinion (DPO) on seismic concerns

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[3] 81 NRC 729 (2015).

[4] ADAMS Accession Nos. ML15274A054 and ML16040A221, respectively.

[5] ADAMS Accession No. ML16084A717.

[6] ADAMS Accession No. ML041770328.

[7] ADAMS Accession Nos. ML17011A205 and ML17011A206, respectively.

[8] ADAMS Accession No. ML17011A204.

at DCPP. A publicly available Case File, DPO-2013-002,[9] provides the concerns submitted by an NRC employee and former resident inspector, Dr. Michael Peck, on the topic of DCPP seismic issues; the deliberations of an independent, three-person NRC panel assigned to assess the DPO (referred to as the DPO Panel); the initial NRC management decision based on the independent DPO Panel; the NRC employee's appeal of the initial management decision; and the review and final disposition of the appeal by the NRC's EDO. The bases for the concerns in the DPO are similar to those submitted in the Petition. In fact, the DPO submittal is used as the basis for several of the Petitioner's assertions. However, as the Commission noted in CLI-15-14, the issues raised in the DPO and in FOE's Petition are not identical, and seismic reevaluation is ongoing at the DCPP.[10]

The NRC Staff analyzed FOE's enforcement concerns, and the results of those analyses are discussed below. Results of the ongoing seismic reevaluation at DCPP are also discussed below. The decision of the Director of the Office of Nuclear Reactor Regulation is provided with respect to each of these concerns.

Concern 1: The Hosgri Evaluation (HE) and the associated Long Term Seismic Plan (LTSP) are a weaker seismic evaluation method than the NRC's recommended method and are inadequate to demonstrate that DCPP can safely shut down following an earthquake caused by the Shoreline, San Luis Bay, or Los Osos faults.[11]

The Petitioner states that the NRC "treated the Hosgri Evaluation as a 'special case,' permitting the seismic evaluation under the LTSP to use materially weaker assumptions than in the NRC standard method," and that the NRC's comparison of "the updated ground motion levels from the three faults to the ground motion levels of the [HE] is not a sufficient basis for concluding that the plant may continue to operate with an adequate margin of safety."[12] FOE contends that "projected ground motion at the plant site caused by an earthquake on one of the three faults is equal to or greater than potential ground motion caused by a Hosgri earthquake."[13]

The DCPP Updated Final Safety Analysis Report (UFSAR) states that there are three design basis earthquakes for DCPP: (1) the design earthquake (DE, 0.2*g* (gravity) peak ground acceleration (PGA)), (2) the double design earthquake

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[9] ADAMS Accession No. ML14252A743.

[10] CLI-15-14, 81 NRC at 736 n.30.

[11] Petition at 54.

[12] *Id.* at 9 and 49, respectively.

[13] *Id.* at 6.

(DDE, 0.4*g* PGA), and (3) the Hosgri Evaluation (0.75*g* PGA).[14] These design earthquakes were analyzed as the design basis for seismic impacts to structures, systems, and components (SSCs) at DCPP important to safety, and have been well established as the seismic design basis for DCPP since the initial operating licenses for this plant were issued. FOE's concern that the HE is not part of the DCPP licensing basis is not supported by DCPP licensing basis documents. This concern is discussed further in Concern 5 below.

FOE states that PG&E's analyses for the LTSP and HE use materially weaker assumptions and show that the potential ground motion of an earthquake on the Shoreline, San Luis Bay, or Los Osos Faults could cause ground motion at DCPP that exceeds the HE. Thus, FOE states the HE is inadequate and not a valid basis for comparison for the Shoreline fault.[15]

The NRC Staff disagrees that the analyses used by PG&E for the LTSP and HE are inadequate for comparison to the new seismic data in the Shoreline fault because licensees are permitted to show seismic compliance using different methods of technical assessment and evaluation. Alternate evaluation methodologies to show compliance are reviewed on a case-by-case basis by the NRC Staff, and a determination is made as to the acceptability of the alternate methodologies and the results. FOE's assertion is similar to Dr. Peck's DPO concern that "PG&E's operability evaluation following the development of the new seismic information was inadequate, because the new seismic information was not compared correctly to the plant's licensing basis."[16] The DPO Panel evaluating Dr. Peck's concern recognized that different methodologies and assumptions were used in the evaluations of the DE, DDE, HE, and LTSP.[17] The NRC found the use of an alternate methodology acceptable in the Shoreline analyses, as alternative approaches were used previously in the UFSAR and LTSP to analyze potential ground motions. The DPO Panel also stated that use of alternate methodologies is technically acceptable and consistent, as summarized in DPO Panel Report, Section 4.2, "Evaluation of Specific DPO Concerns."

The DPO Panel identified that certain comparisons between the Shoreline

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[14] UFSAR § 3.7, "Seismic Design," at 3.7-1 (ADAMS Accession No. ML16004A126).

[15] Petition at 6, 20; FOE's Supplement dated September 30, 2015, at 4; and FOE's Supplement dated February 8, 2016, at 2-3; *see also* FOE's Reply to NRC Staff's and PG&E's Answers and Proposed *Amicus Curiae* Nuclear Energy Institute's Brief in Response to Petition at 20-24 (ADAMS Accession No. ML14287A788).

[16] DPO Panel Report, section 3, "Statements of Concerns," starting at Adobe portable document format (PDF) page 56 of the DPO Case File.

[17] DPO Panel Report, section 2.1, "Use of Seismic Ground Motions in Safety Analyses," starting at 54 of DPO Case File PDF.

evaluation[18] and information in the DCPP UFSAR[19] did not take into account the differences in assumptions for the two analyses.[20] The DPO Panel also recognized the challenge of comparing new seismic information and existing information, and questioned whether it was appropriate to compare the two since the ground motions are different relative to the use of free-field response spectra and damping values.[21]

Ultimately, the DPO Panel concluded that the NRC properly evaluated the Licensee's determination of operability as presented in the Prompt Operability Assessment of October 21, 2011.[22] However, the DPO Panel also determined that additional information from the Licensee would be useful to allow a direct comparison of potential ground motions in the Shoreline report to the ground motions used in the UFSAR analyses.[23] PG&E agreed to conduct additional analyses of the new ground motions, so that the results of these analyses would be directly comparable to the inputs used in the UFSAR analyses.[24] The Panel reviewed the additional calculations that were developed by PG&E and found that potential ground motions from the Shoreline report generally do not exceed the levels of in-structure acceleration already considered during the design and licensing of DCPP.[25] The DPO Panel acknowledged that using the ergodic evaluation method resulted in some SSCs'

> response spectra met or slightly (<10%) exceeded the DDE+HE spectrum at spectral frequencies of 30-50 Hz [Hertz]. This small high-frequency exceedance would not be expected to significantly affect the performance of these types of SSCs. In addition, most of the slight exceedances occurred for SSCs that PG&E had selected a conservative damping value (i.e., lower than used for HE analyses).[26]

Thus, the HE is considered the bounding seismic licensing basis because the exceedances are small and within the acceptable range considering the conservative margins inherent in the DCPP analysis. Therefore, the NRC Staff determined

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[18] Chapter 6.0, "Seismic Hazards Analysis," starting at 6-1 (ADAMS Package Accession No. ML110140431).

[19] UFSAR § 3.7, "Seismic Design," at 3.7-1.

[20] DPO Panel Report, section 4.2.1, "Technical Assessment of the Potential for Seismic Loads on SSCs to Exceed Previously Analyzed Conditions," starting at 60 of DPO Case File PDF.

[21] *Id.*

[22] DPO Panel Report, section 4.2, "Evaluation of Specific DPO Concerns," at 58 of DPO Case File PDF.

[23] DPO Panel Report, section 4.2.1, at 61 of DPO Case File PDF.

[24] *Id.*

[25] *Id.*

[26] DPO Panel Report, section 4.2.1, at 62 of DPO Case File PDF.

that the HE is appropriate as the bounding seismic design basis evaluation and, thus, DCPP is safe to continue operating.

In summary, the DPO Panel acknowledged that different methodologies were used when new seismic information came to light to demonstrate that DCPP is safe to operate, but that these alternate methodologies are adequate and acceptable for demonstrating that DCPP is safe to operate. The DPO Panel took additional action by requesting information from PG&E to directly compare the potential ground motions from the faults — Shoreline, San Luis Bay and Los Osos — with the seismic licensing basis (DE, DDE, and HE). The DPO Panel ultimately found that the potential ground motions from the Shoreline report generally do not exceed the levels previously considered. Thus, FOE's concern about the adequacy of the LTSP and HE has been reviewed and dispositioned by the NRC Staff through the DPO process. Moreover, FOE's concern that the use of the HE is inadequate for comparison with the Shoreline report has been resolved by the NRC Staff through the DPO process. Finally, FOE's concern about the operability of DCPP's SSCs considering the exceedances of the Shoreline report over the HE has been reviewed and resolved by the NRC Staff through the DPO process.

For the reasons set forth above, the NRC Staff determines that DCPP is safe to continue operating and is able to safely shut down following an earthquake caused by the Shoreline, San Luis Bay, or Los Osos faults. Therefore, the NRC Staff does not have a basis for expanding its current level of regulatory oversight in accordance with the NRC's Reactor Oversight Process and the Enforcement Policy, or otherwise taking the Petitioner's requested enforcement actions against the Licensee.

Concern 2: The NRC's own policy does not permit PG&E to determine that the plant is safe to continue operating based on the probabilistic risk assessment ordered by the NRC.[27]

The Petitioner states that "[i]n response to the [Near Term] Task Force's[28] [NTTF] recommendations, the NRC Staff requested that PG&E develop new probabilistic ground motion models. The results of these models were then to be compared to [DCPP's] existing SSE [safe shutdown earthquake (SSE), equivalent to DDE], which is deterministic in nature. But given that Diablo

[27] Petition at 58.

[28] NTTF is a task force established by the NRC in response to the 2011 accident at the Fukushima Dai-ichi nuclear power plant in Japan.

Canyon's design bases are deterministic in nature, a probabilistic risk assessment cannot be used to determine compliance with the plant's design bases."[29]

As a result of the NTTF review of insights from the Fukushima Dai-ichi accident,[30] the Commission instructed the NRC Staff, in Staff Requirements Memoranda associated with SECY-11-0124 and SECY-11-0137,[31] to issue a letter instructing Licensees to perform seismic hazard reevaluations at each site against present-day NRC requirements and guidance. As the state of knowledge of natural phenomena hazards has evolved significantly since the licensing of many of the nuclear power plants within the U.S., and given the demonstrated consequences from Fukushima, the Commission determined that it was necessary to confirm the appropriateness of the hazards assumed for U.S. plants and each plant's ability to protect against them.

In response to these instructions, the NRC Staff issued a request for information pursuant to 10 C.F.R. § 50.54(f) (referred to as the 50.54(f) Letter), dated March 12, 2012,[32] to all nuclear power plant Licensees to allow the NRC Staff to determine whether additional regulatory action was needed in the areas of seismic and flooding design and emergency preparedness. The 50.54(f) Letter included a specific request associated with NTTF Recommendation 2.1 for seismic hazard reevaluations.[33] The 50.54(f) Letter specified a two-phase implementation for the seismic hazard: (1) request all operating reactor Licensees to reevaluate the seismic hazard at their sites using updated seismic hazard information and present-day regulatory guidance and methodologies and, if necessary, to perform a risk evaluation, and (2) if necessary, based upon the results of Phase 1, NRC Staff determined whether additional regulatory actions are necessary (e.g., update the design basis and SSCs important to safety) to protect against the updated hazards.[34]

As discussed in Enclosure 1 to the 50.54(f) Letter, the NRC Staff recognized that the design bases for nuclear power plants were either developed in accordance with, or meet the intent of, 10 C.F.R. Part 50 Appendix A, General Design Criterion (GDC) 2, "Design Bases for Protection Against Natural Phenomena," and 10 C.F.R. Part 100, Appendix A, "Seismic and Geologic Criteria for Nuclear Power Plants."[35] Although the regulatory requirements in 10 C.F.R. Part 100, Appendix A are fundamentally deterministic, the NRC process for determining the seismic design-basis ground motions for new reactor applications on

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[29] Petition at 58.

[30] ADAMS Accession No. ML111861807.

[31] ADAMS Package Accession Nos. ML11245A158 and ML11272A111, respectively.

[32] ADAMS Accession No. ML12053A340.

[33] 50.54(f) Letter, Enclosure 1, "Recommendation 2.1: Seismic."

[34] 50.54(f) Letter, Enclosure 1, at 4.

[35] *Id.*

or after January 10, 1997, as described in 10 C.F.R. § 100.23, "Geological and Seismic Siting Criteria," uses a probabilistic seismic hazard analysis. All currently operating U.S. nuclear power plants, including DCPP, used deterministic criteria for their seismic design; that is, licensees used historical seismic activity known at the time at the site and surrounding area. The design bases used the most severe seismic activity historically reported with margin to account for the limited accuracy.

As part of the 50.54(f) Letter, the NRC Staff communicated that the state of knowledge of seismic hazards has evolved and the level of conservatism in the assessment of the original deterministic seismic design bases needed to be reexamined.[36] The NRC Staff further stated that licensees need to use a probabilistic approach in order to develop a risk-informed performance-based ground motion response spectrum (GMRS) for the site, as provided in Regulatory Guide (RG) 1.208, "A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion," dated March 2007.[37] The probabilistic assessment approach represents the state-of-the-art hazard determination and provides a comprehensive approach for estimating earthquake hazards. Thus, the NRC Staff recognized and endorsed the use of the more modern and advanced methods of seismic hazard assessments using risk. The NRC Staff held over 15 public meetings over a 9-month period with stakeholders to develop the guidance that the industry would use to compare risk and deterministic information. The NRC Staff addressed the comparison of the risk-based reevaluation to the deterministic-based seismic design, and used its expertise to develop a logical, systematic, and conservative process[38] to ensure the industry could make these comparisons appropriately and consistently. As a result, the NRC developed guidance for the nuclear power industry to apply consistently in comparing the new seismic hazard based on risk to the existing deterministic seismic design basis.

In response to the 50.54(f) Letter, NRC Staff reviewed the new seismic hazard analyses completed by all the sites and made determinations as to the acceptability of these comparisons.[39] PG&E provided its new seismic hazard

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[36] *Id.* at 1-2.

[37] ADAMS Accession No. ML070310619.

[38] All licensees committed to follow the guidance of the Electric Power Research Institute (EPRI) Report, "Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic," dated November 2012, found at ADAMS Accession No. ML12333A170. The NRC Staff's endorsement letter dated February 15, 2013, is found at ADAMS Accession No. ML12319A074.

[39] On May 13 and October 27, 2015 (ADAMS Accession Nos. ML15113B344 and ML15194A015, respectively), the NRC Staff issued letters providing the outcome of its screening and prioritization evaluation for Western United States (WUS) plants (WUS screening letters). As indicated in the

(Continued)

analyses, called the Seismic Hazard and Screening Report, for the DCPP site by letter dated March 11, 2015.[40] The Licensee's report concluded that the GMRS exceeds the DDE (i.e., the SSE) within the frequency range of 1 Hz to 10 Hz.[41] Therefore, in accordance with Phase 1 of the 50.54(f) Letter, PG&E needed to perform a seismic probabilistic risk evaluation. In addition, the Licensee needed to complete a high-frequency confirmation because the GMRS also exceeds the SSE above 10 Hz. While PG&E needed to perform additional analyses, the NRC stated that PG&E demonstrated that the seismic margins are supportive of continued plant operation while additional risk evaluations are conducted.[42]

As a result, PG&E is in the process of conducting its seismic probabilistic risk evaluation for DCPP. The NRC Staff currently expects to receive the results of this evaluation by September 30, 2017. Upon receipt, the NRC will review PG&E's seismic risk evaluation to determine whether key plant systems and components can withstand the higher ground motions associated with the reevaluated hazard at DCPP. If it is determined that the plant systems and components cannot adequately withstand the higher ground motion, the NRC will take additional regulatory action, in accordance with Phase 2 of the 50.54(f) Letter.

The Petitioner's concern also involves the relationship between plant operability and the reevaluated hazards.[43] The NRC issued a letter dated February 20, 2014,[44] to all power reactor licensees, which included supplemental information regarding the seismic hazard reevaluations associated with the 50.54(f) Letter. The NRC Staff clarified that the seismic hazard reevaluations being performed pursuant to the 50.54(f) Letter are distinct from the current design or licensing basis of operating plants.[45] Consequently, the results of the analysis performed using present-day regulatory guidance, methodologies, and information would not generally be expected to call into question the operability or functionality of SSCs. However, as with any new information that may arise at a plant, licensees are responsible for evaluating and making determinations related to operability. If at any time during completion of these seismic reevaluations,

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letters, the NRC Staff confirmed the licensees' screening results and examined key parameters to prioritize plants for completion of the seismic risk evaluations. In a letter to PG&E dated December 21, 2016 (ADAMS Accession No. ML16341C057), the NRC Staff concluded that "the licensee [PG&E] conducted the seismic hazard reevaluation using present-day methodologies and regulatory guidance, it appropriately characterized the DCPP site given the information available, and met the intent of the guidance for determining the reevaluated seismic hazard."

[40] ADAMS Package Accession No. ML15071A046.

[41] PG&E's Seismic Hazard and Screening Report, Enclosure 1, at 46.

[42] WUS Screening Letter dated May 13, 2015, at 2.

[43] Petition at 58, 59.

[44] ADAMS Accession No. ML14030A046.

[45] Letter dated February 20, 2014, at 2.

the NRC determines that new seismic information reveals vulnerabilities in the current seismic design basis, it will take appropriate additional regulatory action. In this case, the NRC determined DCPP acted appropriately and within the guidance endorsed by the NRC Staff in evaluating the new seismic information at DCPP. Further, the NRC Staff reviewed the DCPP hazard information and made an independent assessment that the evaluation was adequate and that DCPP is safe to continue operating.

The Petitioner also raises a concern regarding the guidelines used for analyzing newly discovered seismic data at DCPP. Specifically, the Petitioner states that "Diablo Canyon's operating license contains no clear direction or guidelines regarding how PG&E is required to analyze newly discovered seismic data."[46] Similarly, Dr. Peck raised a concern in his DPO about his perceived lack of direction for PG&E in assessing the new seismic data at DCPP.[47] The DPO Panel determined that the ongoing efforts to address lessons learned from the Fukushima Dai-ichi accident provide the appropriate regulatory framework to address this concern, as discussed in Section 4.2 of the DPO Panel Report.

As part of these ongoing efforts, the NRC Staff has enhanced its current processes for addressing changes in external hazard information. The Fukushima lessons-learned efforts also led to installing additional safety enhancements to bolster plants' ability to withstand extreme natural events beyond the facilities' current design basis. Specifically, the NRC Staff is in the process of codifying, through rulemaking, a requirement that Licensees provide capabilities to mitigate the beyond-design-basis flood and seismic events identified through the hazard reevaluations. As contemplated in the draft final rule, operating power reactor licensees would be required to maintain this capability in a manner similar to other beyond-design-basis events (e.g., station blackout, and loss of large areas of the plant caused by explosions or fire) to ensure added assurance of protections against severe natural events such as earthquakes. The NRC Staff provided the draft final rule to the Commission in SECY-16-0142, "Draft Final Rule — Mitigation of Beyond-Design-Basis Events (RIN 3150-AJ49)."[48] While this proposed regulation is still in the midst of NRC's rulemaking process, and thus does not constitute a final agency action, the NRC Staff and the Commission have nevertheless determined that all U.S. nuclear power plants, including DCPP, are currently safe to operate.[49]

In summary, PG&E acted appropriately and within the parameters specified by the NRC Staff in its 50.54(f) Letter when evaluating the new seismic hazards

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[46] Petition at 9 and as discussed in supplements dated September 30, 2015, and February 8, 2016.

[47] Summarized on PDF page 56 of the DPO Case File.

[48] ADAMS Package Accession No. ML16301A005.

[49] Stated in NTTF Report July 12, 2011, SECY-11-0093, ADAMS Accession No. ML111861807; restated in request for information dated March 12, 2012, cover letter, at 1.

at the DCPP. The NRC Staff completed a thorough and in-depth evaluation of DCPP's reevaluated seismic hazard information it has received to date (discussed in more detail in Concern 3 below) in response to the 50.54(f) Letter, and it has determined that DCPP is safe to continue operating and is able to safely shut down if it experiences a seismic event. Additionally, the NRC Staff has taken appropriate actions to address the new information that resulted from seismic hazard reevaluations performed by licensees in response to the 50.54(f) Letter. Therefore, the NRC Staff does not have a basis for expanding its current level of regulatory oversight in accordance with the NRC's Reactor Oversight Process and the Enforcement Policy, or otherwise taking the Petitioner's requested enforcement actions against the Licensee.

Concern 3: The U.S. Geological Survey (USGS) geophysicist who discovered the Shoreline fault has published research concluding that the NRC Staff underestimated the capability of the Shoreline fault and the risk it poses to DCPP.[50]

The Petitioner states that according to USGS geophysicist Dr. Jeanne Hardebeck, "the Shoreline and Hosgri faults are connected, and that a rupture on one fault could travel to the other, leading to a much larger earthquake than would be possible on a single, independent fault."[51] FOE quotes Dr. Hardebeck's conclusions that "PG&E and NRC would be wrong to rule out the possibility of a joint rupture . . ." that "could extend the rupture length an additional ~100 km [kilometers]" and that "[t]his hypothetical earthquake would have a moment magnitude of 7.2-7.5. . . ."[52] FOE further states that the "existing study of the Shoreline Fault is not sufficient to estimate the probability of a Shoreline earthquake occurring" and quotes Dr. Hardebeck as stating that this is because the Shoreline fault "slip rate is unknown."[53]

On January 7, 2011, PG&E transmitted to the NRC a report updating the local seismology in the vicinity of DCPP, titled "Report on the Analysis of the Shoreline Fault Zone, Central Coast California."[54] This report included new deterministic evaluations for the Shoreline, Los Osos, and San Luis Bay earthquake faults. The Licensee concluded that each of these faults was capable of producing between 0.6*g* and 0.7*g* PGA at DCPP. As noted under Concern 2 of this document on March 11, 2015, PG&E submitted a Seismic Hazard Screening

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[50] Petition at 59.

[51] *Id.* at 59-60; *see also* FOE's Reply to NRC Staff's and PG&E's Answers and Proposed *Amicus Curiae* Nuclear Energy Institute's Brief in Response to Petition at 19-20.

[52] Petition at 60.

[53] *Id.*

[54] ADAMS Accession No. ML110140400.

Report for DCPP in response to NRC Staff's 50.54(f) Letter, which requested that PG&E reevaluate the seismic hazard at the DCPP site using updated seismic information and present-day regulatory guidance and methodologies. PG&E's report provided the results of a seismic hazard reevaluation using a probabilistic seismic hazard analysis as specified in 10 C.F.R. § 100.23(d) in order to develop a plant-specific GMRS for screening purposes.

By letter dated September 19, 2012, "Research Information Letter [RIL] 12-01, Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone,"[55] the NRC Staff determined that "[t]he NRC's conservative estimates for the potential ground motions from the Shoreline fault are at or below the ground motions for which the DCPP has been evaluated previously and demonstrated to have reasonable assurance of safety. . . ."[56] RIL 12-01 evaluated the potential hazard from the Shoreline fault using traditional deterministic approaches, which generally focus on faults individually rather than consider less likely earthquake rupture scenarios on linked faults. However, for its response to the 50.54(f) Letter, PG&E developed seismic source models that considered multiple alternative earthquake rupture scenarios that involve the primary faults surrounding the DCPP site.[57] One of these source models specifically captures the potential for a linked rupture starting at the northernmost end of the San Andreas fault, continuing onto the San Gregorio and San Simeon faults, and then onto the Hosgri and Shoreline faults. For this rupture model, PG&E considered three maximum moment magnitudes of 7.7, 8.1, and 8.4, which correspond to theoretical earthquake rupture lengths of 221 km, 461 km, and 802 km, respectively. PG&E also developed a seismic source model that captures the potential for a simultaneous rupture of the entire Hosgri–San Simeon–San Gregorio–San Andreas fault system together with the Shoreline fault. PG&E combined these two hypothetical seismic source rupture models with multiple other source models to develop seismic hazard curves and ultimately a GMRS.[58]

In addition to developing multiple seismic source models, PG&E characterized the slip rates of the Hosgri, Shoreline, Los Osos, and San Luis Bay faults with emphasis on the slip rate uncertainties for the portions of these faults nearest to the DCPP site. To estimate slip rates for the primary faults, PG&E mainly relied on observed offsets of geologic features, which were developed from the extensive offshore two-dimensional and three-dimensional seismic datasets collected within the past decade. PG&E used other geological, geophysical, and geodetic data to check the reasonableness of these estimated slip rates. In partic-

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[55] ADAMS Accession No. ML121230035.

[56] Page xii of RIL 12-01.

[57] *See generally* PG&E's Seismic Hazard and Screening Report.

[58] *Id.*

ular, to estimate the slip rate for the Shoreline fault, PG&E used three geologic offset features in the San Luis Obispo Bay.[59]

The NRC Staff reviewed the analysis developed by PG&E, and concluded in a letter dated December 21, 2016,[60] that the Licensee used present-day guidance and methodologies to calculate the GMRS, as requested in the 50.54(f) Letter. In particular, the NRC Staff concluded that the Licensee reasonably captured multiple possible combinations for each of the fault rupture sources using a wide range of estimated slip rates for each of the faults near DCPP, including multiple combined Shoreline/Hosgri rupture scenarios. FOE claims that as new faults have been discovered, PG&E has modified its Ground Motion Prediction Equations to obtain a desired result that reduces the margin of safety. The NRC Staff disagrees because it has reviewed PG&E's analyses and determined that PG&E has consistently used the latest available peer-reviewed equations developed specifically for the WUS plants to analyze the hazard potential at DCPP from the Hosgri, Shoreline, and other nearby faults.[61] As such, the NRC Staff concluded that "the GMRS determined by the Licensee adequately characterizes the reevaluated seismic hazard for the DCPP site" and that "this GMRS is suitable for use in subsequent evaluations and confirmations, as needed, for the response to the 50.54(f) Letter" and other actions associated with NTTF recommendations.[62] As stated in the WUS screening letter dated May 13, 2015, "the NRC Staff review of WUS reports found that Licensees have demonstrated seismic margins supportive of continued plant operation while additional risk evaluations are conducted."[63] The NRC concluded in the Seismic Hazard Screening Report that while DCPP is conducting a seismic risk evaluation, the plant is safe to continue operation. This, in combination with the conclusion from RIL 12-01 discussed above, confirms that DCPP is safe to continue operation and is capable of safe shutdown.

In summary, NRC Staff concluded in a letter dated December 21, 2016, that PG&E reasonably captured multiple possible combinations for each of the fault rupture sources using a wide range of estimated slip rates for each of the faults near DCPP, including multiple combined Shoreline/Hosgri rupture scenarios. Thus, the NRC Staff does not have a basis for expanding its current level of regulatory oversight in accordance with the NRC's Reactor Oversight Process and the Enforcement Policy, or otherwise taking the Petitioner's requested enforcement actions against the Licensee.

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[59] *Id.*

[60] NRC letter dated December 21, 2016, at 44-45 (ADAMS Accession No. ML16341C057).

[61] *Id.*

[62] *Id.*

[63] WUS screening letter at 2 (ADAMS Accession No. ML15113B344).

Concern 4: Former NRC senior resident inspector Dr. Peck's DPO demonstrates how use of the Hosgri earthquake as a safety metric to analyze the Shoreline Fault is not sufficient to insure DCPP's seismic safety.[64]

In the Petition, the Petitioner states that Dr. Peck's DPO provides examples of how the "NRC's proposed method of evaluating the Shoreline fault and other new seismic information is insufficient to insure plant safety."[65] Specifically, the Petitioner states, "Dr. Peck explains that the LTSP is inadequate as an evaluation method to insure that Diablo Canyon can safely shut down."[66]

As discussed in Concern 1, the disposition of Dr. Peck's DPO is available to the public in Case File DPO-2013-002.[67] This Case File includes Dr. Peck's June 2014 appeal of the DPO Panel Report and a June 2014 Appeal Decision from NRC's EDO. Dr. Peck's primary concerns were the definition of the licensing basis for DCPP, the need for a license amendment, and the requirement for enforcement action due to inappropriate actions taken by the Licensee.[68] In his appeal, Dr. Peck stated that he agreed with the DPO Panel's conclusion with respect to the safety significance of the concerns he raised, stating, in part, "that issues raised in the DPO did not result in a significant or immediate safety concern."[69] Further, Dr. Peck agreed that "the potential ground motions from the nearby faults [Shoreline fault zone] would not exceed the levels of ground motion considered during licensing of the plant."[70] In the Appeal Decision, the EDO agreed that the issues raised in the DPO did not result in a significant or immediate safety concern.[71] The EDO noted that Dr. Peck raised concerns with NRC's licensing process, but was unable to agree with Dr. Peck's conclusions. The DCPP seismic licensing basis topic is discussed in more detail in Concern 5 of this document.

Because the issues raised by the Petitioner under this concern have been considered and resolved by the NRC Staff through the DPO process, as set forth above, the NRC Staff does not have a basis for expanding its current level of regulatory oversight in accordance with the NRC's Reactor Oversight Process and the Enforcement Policy, or otherwise taking the Petitioner's requested enforcement actions against the Licensee.

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[64] Petition at 61.
[65] *Id.*
[66] *Id.* at 62.
[67] ADAMS Accession No. ML14252A743.
[68] DPO Case File PDF at 162.
[69] *Id.* at 87.
[70] *Id.*
[71] *Id.* 163.

Concern 5: The HE and the associated LTSP are not part of DCPP's licensing basis and were intended to be a one-time exception to the current licensing basis.[72]

The Petitioner states that "[i]n approving the LTSP and its Hosgri Evaluation in the 1990s as a method to evaluate the Hosgri Fault, the NRC declined to make the LTSP part of Diablo Canyon's licensing basis, or to designate the Hosgri Evaluation as Diablo Canyon's bounding seismic analysis."[73]

The seismic design basis for DCPP is the DE, DDE, and HE. Throughout the UFSAR, both the DDE and Hosgri earthquake are used to design and qualify SSCs that are important to safety. This basis has been well established from the time of the issuance of the operating license, through the LTSP evaluation, and is still the seismic design basis today as discussed in the DPO Panel Report, section 4.1.2, "Unique Diablo Canyon Seismic Design Basis."

As stated under Concern 2 of this document, the NRC Staff's requirements for the seismic design and licensing bases for currently operating power reactors are described in 10 C.F.R. Part 50, Appendix A, GDC 2 and 10 C.F.R. Part 100, Appendix A. In particular, 10 C.F.R. Part 100, Appendix A, defines the licensing bases concepts of the Operating Basis Earthquake (OBE) and SSE. However, when the construction permits for DCPP were issued in 1968 and 1970, the design bases described in 10 C.F.R. Part 50, Appendix A, "General Design Criteria for Nuclear Power Plants," and 10 C.F.R. Part 100, Appendix A, were not fully implemented in their current form. As such, the Atomic Energy Commission (AEC, the NRC's regulatory predecessor) issued the DCPP construction permit with earthquake design bases of a peak horizontal ground acceleration of 0.2*g* for operational-related structures (called the DE) and 0.4*g* for safety-related structures (called the DDE). These seismic design criteria were based on consideration of two design-basis earthquakes: (1) a magnitude 7.25 earthquake on the Nacimiento fault 20 miles from the site, and (2) a magnitude 6.75 aftershock at the site associated with a large earthquake on the San Andreas fault. It was also concluded that there was no surface displacement hazard in the site vicinity. This conclusion was based on the absence of any displacement of the 80,000-year-old and 105,000-year-old marine terraces underlying the site area. Effectively, the DE and DDE are the DCPP functional equivalents to the OBE and SSE, respectively, as described in the current 10 C.F.R. Part 100, Appendix A. PG&E was required to show that all equipment necessary for continued operation without undue risk to the health and safety of the public would withstand the DE/OBE (i.e., remain functional), and that all safety-related

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[72] Petition at 64.

[73] *Id.* at 69; *see also* FOE's Reply to NRC Staff's and PG&E's Answers and Proposed *Amicus Curiae* Nuclear Energy Institute's Brief in Response to Petition at 5.

equipment needed to safely shut the plant down and maintain a safe shutdown condition would withstand the DDE/SSE.

Subsequently, during the construction phase in 1971, PG&E became aware of the Hosgri fault offshore from DCPP (based on data gathered offshore by a petroleum company), and began an evaluation of the potential hazard posed by the fault. The fault was studied in detail as part of a collaborative research program between PG&E and the USGS. The AEC, and then the NRC, worked with the USGS office to ensure that the seismic hazard was properly characterized. This effort determined that the Hosgri fault could produce up to 0.75*g* ground acceleration at the DCPP site (called the HE). However, the frequency of such a large earthquake was far smaller than what is considered under the SSE requirements (i.e., unlikely to occur during the life of the plant), thus, it was categorized as an extreme event that was beyond the intent of the SSE requirements. During this study, in 1973, the AEC issued Regulatory Guide (RG) 1.61, "Damping Values for Seismic Design of Nuclear Power Plants," dated October 1973.[74] RG 1.61 allowed more damping to be used in seismic evaluations than had previously been used in the evaluations of the DE and DDE. The Licensee used the RG 1.61 values in the HE, but was not required to revise the dampening values it used for the DE or DDE with the differing dampening values. However, the NRC did not grant authorization to operate the plant until the additional external hazard presented by the Hosgri fault was adequately addressed. PG&E addressed the issue by demonstrating that the plant equipment needed to safely shut down the plant and maintain a safe shutdown condition could also withstand 0.75*g* HE ground acceleration. This effort required reevaluation, testing, and plant modifications beyond the approved DDE seismic design bases, and provided additional margin.[75]

This aspect of the design and licensing basis is unique to DCPP, in that the station has three design-basis earthquakes (as opposed to only two) associated with its design, licensing and construction — DE/OBE, DDE/SSE, and HE — as described in the operating license for Unit 1 when it was issued in 1984. As stated in NUREG-0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Nuclear Power Plant, Units 1 and 2," Supplement No. 34 (SSER 34), section 1.4, "Summary of Staff Conclusions," dated June 1991,[76] "the [NRC] staff notes that the seismic qualification basis for Diablo Canyon will continue to be the original design basis [DE/OBE and DDE/SSE] plus the

[74] ADAMS Accession No. ML003740213.

[75] The NRC Staff reviewed and accepted PG&E's revised seismic analysis in the Supplement to Safety Evaluation Report 7 (SSER 7) in 1978. This is found at ADAMS Accession No. ML14279-A129.

[76] ADAMS Accession No. ML14279A130.

Hosgri evaluation basis, along with the associated analytical methods, initial conditions, etc."

By letter dated July 14, 1978,[77] the Advisory Committee on Reactor Safeguards (ACRS) completed its review of the application of PG&E for authorization to operate DCPP and recommended "that the seismic design of Diablo Canyon be reevaluated in about 10 years taking into account applicable new information." As a result of the ACRS's recommendation, the significant advances in geology, seismology, and geophysics that occurred after the beginning of the site review, and the substantial amount of offshore exploration of hydrocarbons, the NRC imposed License Condition 2.C(7) of Facility Operating License DPR-80, which required PG&E to "update the geological, seismological, and ground-motion information, reevaluate the magnitude of the earthquake used to determine the Diablo Canyon seismic design basis, reevaluate ground motion expected at the site, reassess engineering and equipment response, and perform a seismic probabilistic risk assessment (PRA) and deterministic studies, as necessary," as discussed in SSER 34, section 1.1, "Background." By letter dated January 30, 1985, PG&E responded to the license condition by submitting a program plan for the extensive seismic design-basis reevaluation, called the LTSP, and NRC approved the plan by letter dated July 31, 1985.[78] By letters dated April 17, 1991, and May 29, 1991, PG&E committed to continue to study seismic issues and perform periodic seismic reviews of DCPP.[79] Specifically, in the letter dated April 17, 1991, PG&E outlined the framework for using LTSP in the future operation of DCPP, including maintaining a comprehensive database of seismic information and providing a focus for addressing future seismic issues related to DCPP. This commitment to ongoing research and review led to the development of the PG&E-USGS Cooperative Research and Development Agreement Program, which identified the Shoreline fault. SSER 34 concluded that PG&E essentially satisfied all of the four elements of the license condition that led to the LTSP, subject to resolution of one confirmatory item, which was resolved in a letter dated April 17, 1991.

As discussed previously, the Case File for DPO-2013-002 associated with Dr. Peck's DPO includes an appeal to the EDO as well as the EDO's decision on Dr. Peck's appeal, which provide additional background on the NRC's review and approval of the unique seismic design and licensing bases for DCPP. In particular, the EDO decision notes:

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[77] ADAMS Legacy Library Accession No. 8601130427. To access documents in the ADAMS Legacy Library, please submit a request for the documents through the Public Document Room website at https://www.nrc.gov/reading-rm/pdr.html.

[78] ADAMS Legacy Library Accession Nos. 8502130385 and 8508200683, respectively.

[79] ADAMS Legacy Library Accession Nos. 9104300250 and 9106070210, respectively.

> The operating license for Unit 1, issued in 1984, was based on review of the Final Safety Analysis Report Update which included two different seismic methodologies, the DDE and the Hosgri evaluation, as documented in NUREG-0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Power Plant, Units 1 and 2," Supplement No. 7, dated May 1978. Given expected advances in the science of seismic evaluation, the license was also conditioned to require a confirmatory seismic study over the first 10 years of operation, referred to as the Long Term Seismic Plan (LTSP). The NRC's review and acceptance of PG&E's report on the LTSP are discussed in NUREG-0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Nuclear Power Plant, Units 1 and 2," Supplement No. 34, dated June 1991 (SSER 34), and in NRC letter dated April [17], 1992, "Transmittal of Safety Evaluation Closing Out Diablo Canyon Long-Term Seismic Program (TAC Nos. M80670 and M80671) [(ADAMS Accession No. ML14279A132)]."[80]

In summary, the seismic design basis for DCPP included only the DE/OBE and DDE/SSE when the AEC issued the construction permit to PG&E in 1968. However, prior to issuing the operating license in 1984, the AEC/NRC required the Licensee to thoroughly evaluate, test, and complete modifications to the DCPP units to demonstrate they could also withstand ground acceleration associated with the Hosgri fault. Subsequently, the NRC Staff's evaluations of PG&E's revised seismic analysis documented in SSER 7 and SSER 34 established three design-basis earthquakes (as opposed to only two) associated with DCPP's design, licensing, and construction — the DE/OBE, DDE/SSE, and HE. Further, in accordance with its initial license condition (i.e., LTSP), and consistent with its regulatory commitment to the NRC, PG&E has continued to maintain a comprehensive database of seismic information and to conduct ongoing research to address current and future seismic issues related to DCPP. As set forth above, the NRC Staff has considered and resolved the issues raised by the Petitioner under this concern. Therefore, the NRC Staff does not have a basis for expanding its current level of regulatory oversight in accordance with the NRC's Reactor Oversight Process and the Enforcement Policy, or otherwise taking the Petitioner's requested enforcement actions against the Licensee.

III. CONCLUSION

The NRC does not have a basis for taking the Petitioner's requested enforcement actions against the Licensee. The NRC evaluated FOE's concerns, which the Commission referred to the EDO in CLI-15-14. The Commission determined in CLI-15-14 that there was no basis for immediate suspension of plant

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[80] DPO Case File PDF at 159-60.

operations. During the NRC Staff's review of the issues referred to the EDO, it did not find that the continued operation of DCPP would adversely affect public health and safety. Therefore, the NRC denies the Petitioner's requested enforcement actions against the Licensee.

As provided in 10 C.F.R. § 2.206(c), the NRC Staff will file a copy of this Director's Decision with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the Decision will constitute the final action of the Commission 25 days after the date of the Decision unless the Commission, on its own motion, institutes a review of the Decision within that time.

For the Nuclear Regulatory
Commission

William M. Dean, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 21st day of April 2017.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of **Docket No. 52-017-COL**

DOMINION VIRGINIA POWER
(North Anna Power Station,
Unit 3) **May 31, 2017**

EARLY SITE PERMITS; DESIGN CERTIFICATION

Safety matters resolved at the early site permit and design certification stages are generally excluded from the Commission's review of a combined license application.

MANDATORY HEARINGS

Section 189a. of the Atomic Energy Act of 1954, as amended, requires that the Commission hold a hearing on each application to construct a nuclear power plant, regardless of whether an interested member of the public requests a hearing on the application.

MANDATORY HEARINGS: SAFETY ISSUES

With respect to safety matters, the Commission must determine whether (1) the applicable standards and regulations of the Atomic Energy Act and the Commission's regulations have been met; (2) any required notifications to other agencies or bodies have been duly made; (3) there is reasonable assurance that the facility will be constructed and will operate in conformity with the license, the provisions of the Atomic Energy Act, and the Commission's regulations; (4)

the applicant is technically and financially qualified to engage in the activities authorized by the license; and (5) issuance of the license will not be inimical to the common defense and security or to the health and safety of the public.

MANDATORY HEARINGS: NATIONAL ENVIRONMENTAL POLICY ACT

With respect to environmental matters, the Commission must (1) determine whether the requirements of NEPA section 102(2)(A), (C), and (E), and the applicable regulations in 10 C.F.R. Part 51 (the NRC regulations implementing NEPA) have been met; (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; (3) determine, after weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, whether the combined license should be issued, denied, or appropriately conditioned to protect environmental values; and (4) determine whether the NEPA review conducted by the NRC Staff has been adequate.

MANDATORY HEARINGS

The Commission does not review Dominion's application *de novo*; rather, its inquiry is whether the Staff's review was sufficient to support the required findings.

MANDATORY HEARINGS

All safety and environmental matters relevant to the combined license application, except those resolved in the contested combined license proceeding, are subject to the Commission's review in the uncontested proceeding.

DEPARTURES; EXEMPTIONS

Where a combined license applicant references a certified design, changes to the design may be made in the combined license if proposed as a departure from the certified design. Some departures may be made without prior Commission approval. But departures that involve a change to the design as described in the rule certifying the design require an exemption from the Commission's regulations. The Staff may approve an exemption where it finds that the exemption is authorized by law, will not present an undue risk to the public health and safety, is consistent with the common defense and security, and special circumstances

exist that warrant the exemption. In addition, the Staff must determine that the special circumstances outweigh any decrease in safety resulting from the reduction in standardization that may result from the exemption.

GENERAL DESIGN CRITERIA

General Design Criterion 2 requires that safety-related structures at nuclear power plants be able to withstand the most severe earthquakes historically reported for the site and the area surrounding the site.

GENERAL DESIGN CRITERIA

General Design Criterion 2 requires that the fuel assembly and control rod blade mechanical designs are capable of withstanding the effects of natural phenomena.

NATIONAL ENVIRONMENTAL POLICY ACT

National Environmental Policy Act section 102(2)(A) requires agencies to use "a systemic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts" in decision-making that may impact the environment.

NATIONAL ENVIRONMENTAL POLICY ACT

National Environmental Policy Act section 102(2)(C) requires the Commission to assess the relationship between short-term uses and long-term productivity of the environment (including consideration of the benefits of operating the new units), to consider alternatives, and to describe the unavoidable adverse environmental impacts and the irreversible and irretrievable commitments of resources associated with the proposed action.

NATIONAL ENVIRONMENTAL POLICY ACT

National Environmental Policy Act section 102(2)(E) calls for agencies to study, develop, and describe appropriate alternatives.

MEMORANDUM AND ORDER

On March 23, 2017, we held a hearing on the combined license (COL)

application of Dominion Virginia Power to construct and operate a new nuclear reactor at the North Anna Power Station site in Louisa County, Virginia. In this uncontested proceeding, we consider whether the review of the application by the NRC Staff has been adequate to support the findings set forth in 10 C.F.R. §§ 52.97(a) and 51.107(a). As discussed below, we conclude that the Staff's review was sufficient to support the regulatory findings and authorize issuance of the combined license.

I. BACKGROUND

A. Proposed Action

In November 2007, Virginia Electric and Power Company, doing business as Dominion Virginia Power (Dominion) and Old Dominion Electric Cooperative (ODEC), applied to build an Economic Simplified Boiling Water Reactor (ESBWR) at the North Anna Power Station site.[1] In 2011, ODEC terminated its interest in the proposed Unit 3; Dominion, a wholly-owned subsidiary of Dominion Resources, Inc., will solely own, construct, and operate Unit 3.[2] Two units are currently operating at the site.[3]

Consistent with 10 C.F.R. Part 52, Appendix E, Dominion's COL application references the ESBWR certified design, as amended by Revision 10 of the design control document (DCD).[4] The first combined license application for a given design is designated the "reference COL" application (RCOLA) and later applications referencing the same design are designated "subsequent COL" applications (SCOLA). Where the Staff has already resolved an issue with respect to the RCOLA, the Staff's review of the same issue (a "standard issue") in an SCOLA consists of confirming that the information is identical in both applications and that there are no site-specific issues that require further consideration. The application for Fermi Nuclear Power Plant, Unit 3 was designated as the

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[1] Letter from David A. Christian, President and Chief Nuclear Officer, Dominion, to NRC Document Control Desk (Nov. 26, 2007) (ADAMS accession no. ML073320913).

[2] Ex. NRC-005A, Dominion, North Anna 3 Combined License Application, Part 1: General and Administrative Information, rev. 4 (July 2013), at 1, 5 (ML17086A245) (Application); *id.,* Attach. A, Dominion Resources Inc., Form 10-K (Feb. 28, 2013), at 97. For ease of reference, we refer to the COL applicant as "Dominion."

[3] Ex. NRC-005A, Application, at 1; *see* Exs. NRC-005B to NRC-005K, Dominion, North Anna Unit 3 Combined License Application, Part 2: Final Safety Analysis Report, rev. 9 (various dates) (ML17086A246, ML17086A247, ML17086A248, ML17086A249, ML17086A251, ML17086A252, ML17086A253, ML17086A254, ML17086A256) (COL FSAR).

[4] *See* Ex. NRC-005A, Application, at 1; *see also* GE Hitachi ESBWR Design Control Document, rev. 10 (Apr. 1, 2014) (ML14104A929 (package)) (ESBWR DCD). The certified design is codified in 10 C.F.R. Part 52, Appendix E, "Design Certification Rule for the ESBWR Design."

RCOLA for the ESBWR design; the North Anna combined license application is therefore considered an SCOLA.[5]

Dominion's application also incorporates by reference the North Anna Power Station Early Site Permit (ESP).[6] Issuance of the ESP resolved the suitability of the North Anna site for and authorized certain activities related to the construction of up to two additional nuclear units at the site.[7] The ESP used the plant parameter envelope (PPE) approach, meaning that no reactor design was designated, and the Staff's review of the ESP relied on a set of design parameters serving as a surrogate for the design ultimately chosen.[8] The Staff prepared an environmental impact statement (EIS) for the ESP.[9] The Staff's environmental review of the North Anna COL application includes: analysis of issues deferred to the COL stage, issues unresolved by the ESP, and any new and potentially significant information that has become available since the ESP environmental review or otherwise has the potential to affect the Staff's findings or conclusions from the ESP EIS.[10] The Staff's environmental review at the COL stage focused

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[5] *See* Ex. NRC-001, "Staff's Statement in Support of the Uncontested Hearing for Issuance of a Combined License for North Anna Power Station Unit 3," Commission Paper SECY-17-0009 (Jan. 18, 2017), at 5 (ML17086A240) (Staff Information Paper).

[6] Ex. NRC-005A, Application, at 1. In 2013, the Staff approved the transfer of ODEC's interest in the ESP to Dominion. In the Matter of Virginia Electric and Power Company, and Old Dominion Electric Cooperative; ESP for North Anna ESP Site; Order Approving Direct Transfer of Early Site Permit and Approving Conforming Amendment, 78 Fed. Reg. 8193 (Feb. 5, 2013).

[7] Dominion Nuclear North Anna, LLC, North Anna ESP Site, Docket No. 52-008, Early Site Permit No. ESP-003 (Nov. 27, 2007) (ML073180440) (Early Site Permit); Virginia Electric and Power Co., North Anna ESP Site, Docket No. 52-008, Early Site Permit No. ESP-003, Amendment No. 3 (Jan. 30, 2013) (ML12297A207); *see* Ex. DVP-001-R, Dominion Virginia Power's Corrected Pre-Filed Testimony in Support of the Mandatory Hearing of the North Anna Power Station, Unit 3 Combined License (Mar. 16, 2017), at 10-14 (ML17086A075) (Dominion Pre-Filed Testimony) (describing the scope of the ESP, the effect of the ESP on the combined license application, the ESP combined license action items, ESP conditions, and variances from the ESP).

[8] The rules applicable to early site permits in 10 C.F.R. Parts 51, 52, and 100 do not require specific design information, although 10 C.F.R. § 52.17(a)(1) lists what technical information must be included in the application. The design parameters chosen for the PPE provided sufficient design details to support review of the ESP and were intended to bound multiple reactor designs. The ESBWR design, as discussed *infra,* was reviewed to confirm that it fits within the PPE as reviewed for the early site permit. *See* Ex. NRC-001, Staff Information Paper, at 3-4. *See generally* Early Site Permit, apps. B & D.

[9] "Environmental Impact Statement for an Early Site Permit (ESP) at the North Anna ESP Site" (Final Report), NUREG-1811, vols. 1-2 (Dec. 2006) (ML063470330, ML063470332) (ESP Final EIS). The Staff's environmental review of Dominion's combined license application is therefore a supplement to the ESP Final EIS. Ex. NRC-009, "Supplemental Environmental Impact Statement for the Combined License (COL) for North Anna Power Station Unit 3" (Final Report), NUREG-1917 (Feb. 2010) § 1.0 (ML17086A259) (Final SEIS); *see* Ex. NRC-001, Staff Information Paper, at 4.

[10] Ex. NRC-009, Final SEIS § 1.1.1; Ex. NRC-001, Staff Information Paper, at 4.

on those issues that were deferred or unresolved at the ESP stage, including information where the design selected fell outside the design parameters specified in the ESP.[11]

The Staff's safety review did not address issues resolved in connection with either the ESP or the ESBWR design certification, except where Dominion sought variances from the ESP or exemptions or departures from the certified design. The Staff's safety review focused on information provided in the application to demonstrate that the design of the facility falls within the site characteristics and design parameters specified in the ESP.[12] The Staff also reviewed site-specific safety issues not addressed in either the ESP or design certification reviews. Safety matters resolved at the ESP and design certification stages are generally excluded from our review of Dominion's combined license application.[13]

Over the past nine years, the Staff has spent approximately 105,000 hours on the safety and environmental reviews of the application.[14] During this time, the Staff conducted approximately 100 public meetings and teleconferences.[15] Dominion responded to approximately 820 Staff requests for additional information, 800 of which were associated with the safety review and twenty of which were associated with the environmental review.[16]

Staff from across the agency contributed to the Office of New Reactors' technical review of Dominion's application.[17] The U.S. Army Corps of Engineers (Corps) commented on the Draft SEIS.[18] In addition, the Staff consulted with federal, state, local, and tribal organizations and governments concerning a

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[11] Ex. NRC-001, Staff Information Paper, at 4.

[12] The Staff's review of the ESP application included the "major features" of the emergency plan; the complete and integrated emergency plan was submitted as part of the COL application. "Safety Evaluation Report for an Early Site Permit (ESP) at the North Anna ESP Site," NUREG-1835 (Sept. 2005), at 1-1 (ML052710305) (ESP SER); *see* Ex. NRC-005C, COL FSAR § 13.3; Ex. NRC-007, "Final Safety Evaluation Report for the North Anna Unit 3 Combined License Application" (Jan. 2017) § 13.3 (ML17086A258) (COL Final SER); *see also* 10 C.F.R. § 52.17(b)(2). A portion of the Final SER is non-public and was admitted into the record as Ex. NRC-008.

[13] 10 C.F.R. §§ 52.39 and 52.63; ESP SER; "Safety Evaluation Report for an Early Site Permit (ESP) at the North Anna ESP Site," NUREG-1835, supp. 1 (Nov. 2006) (ML063170371); *see also* Ex. NRC-001, Staff Information Paper, at 12; Ex. NRC-010, Combined License Application (COLA) Review for North Anna 3 (NA3) — Overview Panel (Mar. 23, 2017), at 4 (ML17086A260) (Staff Overview Presentation). *See generally* ESP Final EIS.

[14] Tr. at 46 (Ms. Ordaz).

[15] Ex. NRC-001, Staff Information Paper, at 6; Tr. at 46 (Ms. Ordaz).

[16] Tr. at 47 (Ms. Ordaz).

[17] *Id.* at 47-48 (Ms. Ordaz).

[18] *See, e.g.,* Ex. NRC-009, Final SEIS, app. C, at C-11; *id.,* app. E, tbl. E-1; Ex. NRC-004, NRC Staff Responses to Commission Pre-Hearing Questions (Mar. 2, 2017), at 13 (ML17086A244) (Staff Pre-Hearing Responses).

variety of issues, including those arising under the National Environmental Policy Act of 1969 (NEPA), the National Historic Preservation Act (NHPA), and the Endangered Species Act.[19] The Advisory Committee on Reactor Safeguards (ACRS), a committee of technical experts advising the Commission, provided an independent assessment of the safety aspects of Dominion's application.[20]

B. Review Standards

Section 189a. of the Atomic Energy Act of 1954, as amended (AEA), requires that we hold a hearing on each application to construct a nuclear power plant, regardless of whether an interested member of the public requests a hearing on the application.[21] With respect to safety matters, we must determine whether

(1) the applicable standards and regulations of the AEA and the Commission's regulations have been met;

(2) any required notifications to other agencies or bodies have been duly made;

(3) there is reasonable assurance that the facility will be constructed and will operate in conformity with the license, the provisions of the AEA, and the Commission's regulations;

(4) the applicant is technically and financially qualified to engage in the activities authorized by the license; and

(5) issuance of the license will not be inimical to the common defense and security or to the health and safety of the public.[22]

With respect to environmental matters, we must

(1) determine whether the requirements of NEPA section 102(2)(A), (C), and (E), and the applicable regulations in 10 C.F.R. Part 51 (the NRC regulations implementing NEPA) have been met;

(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;

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[19] Tr. at 56 (Ms. Bradford), 123 (Ms. Dozier); *see* Ex. NRC-009, Final SEIS, app. B & app. C.

[20] Atomic Energy Act § 182b., 42 U.S.C. § 2232(b); 10 C.F.R. §§ 1.13, 52.87; *see* Letter from Dennis C. Bley, ACRS, to Stephen G. Burns, Chairman, NRC (Nov. 16, 2016) (ML16312A412) (generally recommending approval of the combined license application) (ACRS Letter).

[21] AEA § 189a., 42 U.S.C. § 2239(a).

[22] 10 C.F.R. § 52.97(a).

(3) determine, after weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, whether the combined license should be issued, denied, or appropriately conditioned to protect environmental values; and

(4) determine whether the NEPA review conducted by the NRC Staff has been adequate.[23]

We do not review Dominion's application *de novo*; rather, our inquiry is whether the Staff's review was sufficient to support these findings.[24]

C. Procedural History

In order to provide context for the COL proceeding, this section first relates a brief history of the North Anna ESP proceeding. Next, it recounts the history of the contested COL proceeding, which spanned from 2008 through 2015 and involved both site-specific litigation and petitions affecting multiple dockets.

1. Early Site Permit Proceeding

In September 2003, Dominion Nuclear North Anna, LLC, an indirect wholly-owned subsidiary of Dominion Resources, Inc., applied for an ESP, seeking approval to locate additional nuclear power reactors at a location within the existing North Anna Power Station site.[25] Later that year, the Staff issued a notice of hearing and opportunity for interested members of the public to petition to intervene.[26] In response, the Blue Ridge Environmental Defense League (BREDL), the Nuclear Information and Resource Service, and Public Citizen (collectively, the ESP Petitioners) sought a hearing.[27]

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[23] *Id.* § 51.107(a).

[24] *See, e.g., DTE Electric Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-15-13, 81 NRC 555, 560-61 (2015).

[25] Letter from David A. Christian, Senior Vice President, Nuclear Operations and Chief Nuclear Officer, Dominion, to James E. Dyer, Director, Office of Nuclear Reactor Regulation, NRC (Sept. 25, 2003) (ML032731511); Dominion, North Anna Early Site Permit Application, Part 1, rev. 9 (Sept. 2006), at 1-1-1 (ML062580103).

[26] Dominion Nuclear North Anna, LLC; Notice of Hearing and Opportunity to Petition for Leave to Intervene; Early Site Permit for the North Anna ESP Site, 68 Fed. Reg. 67,489 (Dec. 2, 2003).

[27] Contentions of Blue Ridge Environmental Defense League, Nuclear Information and Resource Service, and Public Citizen Regarding Early Site Permit Application for Site of North Anna Nuclear Power Plant (May 3, 2004) (ML041320393); Hearing Request and Petition to Intervene by Blue Ridge Environmental Defense League, Nuclear Information and Resource Service, and Public Citizen (Jan. 2, 2004) (ML040510285).

The Board found that the ESP Petitioners had established standing to intervene in the proceeding and admitted two environmental contentions.[28] Both admitted contentions were resolved without an evidentiary hearing. Thereafter, in December 2006, the Staff published its Final EIS associated with the ESP.

In 2007, the Board issued its initial decision on the uncontested portion of the ESP proceeding.[29] The Board found that the Staff's review of the ESP application was adequate and the record was sufficient to support the safety-related findings required for the issuance of the ESP.[30] The Board also determined that the Staff had satisfied the requirements of NEPA and the NRC's environmental regulations.[31] The Board, however, expressed concern with the use of the PPE given our stated policy against issuance of "partial" ESPs.[32] The Board therefore highlighted the question for our review.[33] Thereafter, we took briefs from the parties on a number of issues, including the "partial ESP" issue raised by the Board,[34] and we ultimately "authorize[d] the Staff to issue the ESP."[35]

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[28] *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-04-18, 60 NRC 253, 262-63, 276 (2004).

[29] *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), LBP-07-9, 65 NRC 539 (2007).

[30] *Id.* at 629.

[31] *Id.*

[32] *Id.* at 627; *see* Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Reactors; Final Rule, 54 Fed. Reg. 15,372, 15,378 (Apr. 18, 1989) ("Where adequate information is not available, early site permits will not be issued.").

[33] *North Anna,* LBP-07-9, 65 NRC at 628, 629. At the time the Board issued its initial decision, 10 C.F.R. § 2.340(f) provided that presiding officers' decisions concerning construction permits (including ESPs, which are partial construction permits) were not effective until the Commission itself analyzed both the record and the presiding officer's decision and determined whether a stay of the permit was warranted. 10 C.F.R. § 2.340(f) (2007). Shortly after the Board issued LBP-07-9, we promulgated a final rule revising this provision and providing that a presiding officer's decision regarding an early site permit (among other actions) is immediately effective "unless the presiding officer finds that good cause has been shown by a party why the initial decision should not become immediately effective." Licenses, Certifications, and Approvals for Nuclear Power Plants; Final Rule, 72 Fed. Reg. 49,352, 49,476 (Aug. 28, 2007) (Part 52 Final Rule); *see* 10 C.F.R. § 2.340(f) (2008).

[34] *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-23, 66 NRC 35, 35-36 (2007).

[35] *Dominion Nuclear North Anna, LLC* (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 259 (2007). We concluded that "incomplete information is not necessarily a fatal flaw, or even a flaw at all, in an ESP proceeding." *Id.* at 235. Another issue we considered at the time concerned the applicability of multiple radiation protection standards to new reactor construction on a site with existing reactors. We observed that the Board's questions would be deferred to the COL or CP stage. *Id.* at 250, 252-54. Dominion's COL application addresses radiation protection

(Continued)

2. Combined License Application Contested Proceeding

Initially, Dominion's combined license application referenced the ESBWR design.[36] In response to a notice of hearing on the application,[37] BREDL and its Virginia-based chapter, People's Alliance for Clean Energy, petitioned for leave to intervene and filed eight proposed contentions.[38] The North Carolina Utilities Commission (NCUC) sought to participate as an interested government entity.[39]

The Board found that BREDL had standing to intervene, granted NCUC's request to participate, and admitted one contention.[40] In Contention 1, BREDL argued that Dominion's application did not include a plan to manage low-level radioactive waste and that Dominion's environmental report did not analyze the environmental consequences of retaining low-level radioactive waste onsite.[41] In May 2009, Dominion revised its application to describe its plans for onsite management of Class B and Class C low-level radioactive waste.[42] Based on this revision, Dominion moved to dismiss Contention 1.[43] Thereafter, BREDL

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standards. *See* Ex. NRC-005C, COL FSAR, ch. 12; *see also* Ex. NRC-007, COL Final SER, ch. 12 (finding that the information Dominion provided regarding radiation protection was within the scope of the certified design and therefore that all nuclear safety issues related to radiation sources, dose assessments, and the operational radiation protection program were resolved).

[36] Dominion, North Anna Unit 3 Combined License Application, Part 2: Final Safety Analysis Report, rev. 0 (Nov. 2007) § 1.1 (ML073321127).

[37] Dominion Virginia Power; Notice of Hearing and Opportunity to Petition for Leave to Intervene on a Combined License for North Anna Unit 3, 73 Fed. Reg. 12,760 (Mar. 10, 2008). Subsequently, the Staff supplemented this notice. Dominion Virginia Power; Supplement to Notice of Hearing and Opportunity to Petition for Leave to Intervene on a Combined License for North Anna Unit 3; Order Imposing Procedures for Access to Sensitive Unclassified Non-Safeguards Information (SUNSI) and Safeguards Information (SGI) for Contention Preparation, 73 Fed. Reg. 21,162 (Apr. 18, 2008).

[38] Petition for Intervention and Request for Hearing by the Blue Ridge Environmental Defense League (May 9, 2008) (Petition).

[39] Request of the North Carolina Utilities Commission for an Opportunity to Participate in Any Hearing and to Be Added to the Official Service List (May 9, 2008).

[40] LBP-08-15, 68 NRC 294, 338 (2008).

[41] *Id.* at 312-13; *see* Petition at 5-7. The Board admitted Contention 1 only as to its "safety" aspects; the Board held that the environmental portion of the contention had been resolved during the ESP proceeding and was therefore barred from reconsideration at the COL stage pursuant to 10 C.F.R. § 52.39(a)(2). LBP-08-15, 68 NRC at 325.

[42] Letter from Eugene S. Grecheck, Vice President of Nuclear Dev., Dominion, to NRC Document Control Desk (May 21, 2009), at 1 (ML091520636). To implement this plan, Dominion proposed a Tier 2 departure, NAPS DEP 11.4-1, "Long-term, Temporary Storage of Class B and C Low-Level Radioactive Waste." Ex. NRC-007, COL Final SER §§ 11.4, 12.2. Dominion proposed the change to provide for North Anna Unit 3's radwaste building to allow for at least ten years of Class B and Class C waste and at least three months of packaged Class A waste. The certified design, by contrast, allows for onsite storage for six months' volume of packaged low-level radioactive waste. ESBWR DCD, Tier 2 Material § 11.4.1.

[43] Dominion's Motion to Dismiss BREDL Contention 1 as Moot (June 1, 2009).

filed a motion to admit Contention 10, challenging Dominion's plans.[44] The Board dismissed Contention 1 as moot[45] and shortly thereafter admitted Contention 10, limited to BREDL's challenge to Dominion's claim that improved fuel performance will reduce the amount of Class B and Class C waste.[46]

In May 2010, Dominion notified the Staff of a change in its selected reactor design from the ESBWR to the U.S. Advanced Pressurized Water Reactor design.[47] BREDL then submitted a new Contention 11, arguing that Dominion's "mid-stream change of nuclear reactor technology for North Anna Unit 3 . . . deprives the interested public of its rightful opportunity to review and comment on [NRC] proceedings."[48] BREDL requested that we direct Dominion to restart the application process from the beginning.[49] Reserving judgment on the admissibility of Contention 11, the Board set a deadline for new contentions based on Dominion's revised application.[50]

Contemporaneously, Dominion sought to dismiss Contention 10 as moot given the changes to its application.[51] The Board granted Dominion's motion to dismiss and at the same time denied admission of proposed Contention 11 on the ground that the contention was not material to the NRC's licensing decision and did not articulate a genuine dispute of law with Dominion's revised application.[52] BREDL thereafter filed two new contentions on Dominion's revised application.[53] In Contention 12, concerning Dominion's environmental re-

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[44] Intervenor's Motion to Submit New Contention (June 8, 2009); *see also* Intervenor's Amended Contention Ten (June 26, 2009).

[45] Order (Dismissing Contention 1 as Moot) (Aug. 19, 2009), at 3-4 (unpublished).

[46] LBP-09-27, 70 NRC 992, 1012-13, 1016 (2009). Dominion sought reconsideration of the Board's admission of Contention 10, which the Board denied. Order (Denying Motion for Reconsideration of LBP-09-27) (Mar. 22, 2010) (unpublished).

[47] Letter from Eugene S. Grecheck, Vice President, Nuclear Dev., Dominion, to NRC Document Control Desk (May 18, 2010) (ML101410207); *see* Letter from Eugene S. Grecheck, Vice President, Nuclear Dev., Dominion, to NRC Document Control Desk (June 28, 2010) (ML101820627) (transmitting revised application).

[48] Intervenor's New Contention Eleven (June 17, 2010), at 2.

[49] *Id.*

[50] Order (Setting Deadline for Filing New Contentions Based on New Information in the Applicant's June 29, 2010 Revision to the License Application) (Aug. 11, 2010) (unpublished); *see* Order (Concerning the Schedule for Filing New Contentions Based on Applicant's June 29, 2010 Revision to Its License Application) (July 13, 2010) (unpublished) (seeking parties' views on the supplemental schedule while reserving judgment on the admissibility of Contention 11).

[51] Dominion's Motion to Dismiss BREDL's Contention 10 as Moot (July 12, 2010).

[52] LBP-10-17, 72 NRC 501, 517 (2010).

[53] Intervenor's New Contentions (Oct. 2, 2010) (BREDL's Contentions 12 and 13). BREDL referred to the new contentions as Contention One and Contention Two, respectively. *Id.* at 2, 6. For clarity, we use the Board's terminology and refer to them as Contentions 12 and 13. LBP-11-10, 73 NRC 424, 427 (2011).

view, BREDL argued for consideration of alternate cooling mechanisms.[54] The Board found that one aspect of Contention 12 had been resolved during the ESP proceeding and that no exception allowed BREDL to revisit the issue.[55] The Board concluded that the remaining aspects of the contention had been previously analyzed with respect to the ESBWR design and that the information had not materially changed. Accordingly, the Board found those portions of the contention untimely.[56] And in proposed Contention 13, BREDL argued that "Dominion ha[d] improperly requested a site-specific exemption from the Design Control Document Tier 1 for proposed North Anna Unit 3."[57] The Board denied Contention 13 for failing to identify a genuine dispute with Dominion's exemption request.[58]

Following the August 2011 earthquake in Mineral, Virginia, BREDL argued in Contention 14 that the earthquake and its effects indicated that the North Anna nuclear reactor site "is unsuitable for a third reactor."[59] Thereafter, Dominion, with BREDL's and the Staff's consent, moved to hold the proposed contention in abeyance until Dominion completed its analysis of the earthquake's impact on the combined license application.[60] The Board granted Dominion's consent

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[54] BREDL's Contentions 12 and 13 at 2-6.

[55] LBP-11-10, 73 NRC at 432, 442-47. The previously resolved portion of Contention 12 related to the dry cooling tower alternative to mitigate thermal discharges and water use. *Id.* at 432; *see also North Anna,* LBP-07-9, 65 NRC at 564-69.

[56] LBP-11-10, 73 NRC at 432, 445-47.

[57] BREDL's Contentions 12 and 13 at 6. The exemption request was associated with an exceedance of the safe-shutdown earthquake.

[58] LBP-11-10, 73 NRC at 452-53 ("while BREDL says that the [exemption] request is 'improper,' it does not say what is improper about that request or under which section of [Part 52 or 10 C.F.R. § 50.12] that request is inappropriate.") (citation omitted). Following the Board's denial of Contentions 12 and 13, Dominion sought clarification regarding why the Board kept the proceeding open in the absence of any admitted contentions and requested that the Board terminate the proceeding. Dominion's Motion for Clarification of LBP-11-10 (Apr. 18, 2011). The Board denied Dominion's request; Dominion sought our review. LBP-11-22, 74 NRC 259, 285 (2011); Dominion's Petition for Review of LBP-11-22 (Sept. 16, 2011). We reversed the Board's ruling but directed the Board "to exercise jurisdiction for the limited purpose of considering whether to reopen the record" and admit a proposed new contention — filed during the pendency of Dominion's motion for clarification — related to the August 2011 earthquake in Mineral, Virginia. CLI-12-14, 75 NRC 692, 701-02 (2012).

[59] Request to Admit Intervenor's New Contention (Sept. 22, 2011), at 3.

[60] Consent Motion to Hold BREDL's New Contention in Abeyance (Oct. 12, 2011). Notwithstanding the consent motion, Dominion and the Staff both opposed admission of Contention 14. *See* Dominion's Opposition to BREDL's New Contention (Oct. 17, 2011); NRC Staff Answer to "Request to Admit Intervenor's New Contention" Filed by the Blue Ridge Environmental Defense League (Oct. 17, 2011).

motion and held Contention 14 in abeyance.[61] In April 2013, Dominion notified the Board and the parties that it planned to return to the ESBWR design.[62] Dominion committed to provide an action plan regarding the schedule for the application revisions and stated that the plan would include an updated schedule for the seismic assessment related to Contention 14.[63]

In January 2014, Dominion advised the Board that it had updated its application to reflect the use of the ESBWR reactor design and completed its seismic assessment.[64] BREDL then moved to reopen the record and admit an amended Contention 14, arguing that "[Dominion] . . . has not presented a sound probabilistic basis for the magnitude of the possible adverse consequences and the likelihood of occurrence of each consequence for issuing a license to construct and operate North Anna Unit 3."[65] The Board denied BREDL's motions on the ground that BREDL's proposed contention neither challenged nor otherwise addressed Dominion's revised application or seismic assessment and therefore failed to articulate a litigable issue.[66]

Several petitions filed on multiple dockets were dispositioned over the course of the contested proceeding. BREDL joined several petitioners and filed a petition to suspend reactor licensing and rulemaking decisions and for other relief in light of the March 2011 Fukushima Dai-ichi accident.[67] We denied the petitions in all but two respects: we granted the request for a safety analysis of the accident based on the agency's plans for a short-term and long-term lessons-learned review, and we referred portions of the petition relating to pending certified

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[61] Order (Granting Consent Motion to Hold BREDL's New Contention in Abeyance) (Oct. 20, 2011), at 2 (unpublished); *see* CLI-12-14, 75 NRC at 698-99.

[62] Letter from David R. Lewis, Counsel for Dominion, to the Administrative Judges (Apr. 26, 2013) (attaching Letter from Eugene S. Grecheck, Vice President, Nuclear Eng'g and Dev., Dominion, to NRC Document Control Desk (Apr. 25, 2013)).

[63] *Id.* at 1-2. BREDL filed a motion to reopen the record and file new contentions based on the change to the ESBWR design but sought to defer submission of new contentions until after Dominion revised its application. Request to Reopen and Admit New Contention (May 28, 2013), at 1-2. The Board effectively granted this request and held the motion in abeyance pending BREDL's submission of contentions. Order (Holding Motion to Reopen the Proceeding in Abeyance) (July 23, 2013) (unpublished).

[64] Letter from David R. Lewis, Counsel for Dominion, to the Administrative Judges (Jan. 6, 2014).

[65] Motion to Reopen and Admit New Contention (Mar. 7, 2014), at 1-2.

[66] LBP-14-8, 79 NRC 519, 525-26 (2014).

[67] 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).

design documents, including the ESBWR amendment, to the Staff as comments on the design certification rulemakings.[68]

As did petitioners in a number of other reactor licensing proceedings, early on in the proceeding BREDL proposed a contention concerning the NRC's then-proposed Waste Confidence Decision update.[69] The Board denied admission of the contention because it was impermissibly late and did not rely on new and previously unavailable information.[70] In 2012, in response to the D.C. Circuit's vacatur and remand of the agency's Waste Confidence Decision Update and Temporary Storage Rule, BREDL and several other petitioners sought to suspend pending licensing decisions, including North Anna, until the agency completed action on the court's remand.[71] We granted the petitions in part — we suspended the issuance of final licensing decisions until the court's remand was appropriately addressed and held any related contentions, including BREDL's proposed contention in this case, in abeyance until further order.[72]

We lifted the suspension on final licensing decisions in August 2014, after we approved a generic environmental impact statement (GEIS) and final Continued Storage Rule that addressed the issues in the D.C. Circuit's remand.[73] BREDL thereafter joined another multi-docket suspension petition with a mo-

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[68] *Union Electric Co. d/b/a Ameren Missouri* (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 173, 175-76 (2011); *see* Economic Simplified Boiling-Water Reactor Design Certification; Final Rule, 79 Fed. Reg. 61,944 (Oct. 15, 2014).

[69] Intervenor's New Contention Nine (March 9, 2009). *See generally* Waste Confidence Decision Update, 73 Fed. Reg. 59,551 (Oct. 9, 2008); Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation, 73 Fed. Reg. 59,547 (Oct. 9, 2008).

[70] Order (Denying Motion to Admit Proposed Contention Nine) (June 2, 2009), at 5-6 (unpublished). And the Board concluded that even if Contention 9 had been timely filed, it would have been inadmissible because it sought to litigate the subject of an ongoing rulemaking. *Id.* at 6-7; *see* 10 C.F.R. § 2.335(a).

[71] Petition to Suspend Final Decisions in All Pending Reactor Licensing Proceedings Pending Completion of Remanded Waste Confidence Proceedings (June 18, 2012), at 12. *See generally New York v. NRC,* 681 F.3d 471 (D.C. Cir. 2012); Consideration of Environmental Impacts of Temporary Storage of Spent Fuel After Cessation of Reactor Operation; Final Rule, 75 Fed. Reg. 81,032 (Dec. 23, 2010); Waste Confidence Decision Update, 75 Fed. Reg. 81,037 (Dec. 23, 2010). BREDL also filed a motion to reopen the proceeding to admit a contention challenging Dominion's Environmental Report in light of the court's decision. Motion to Reopen the Record for North Anna Unit 3 (July 9, 2012); Intervenors' Motion for Leave to File a New Contention Concerning Temporary Storage and Ultimate Disposal of Nuclear Waste at North Anna Unit 3 (July 9, 2012).

[72] *Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 67-69 (2012).

[73] *Calvert Cliffs 3 Nuclear Project, LLC and UniStar Nuclear Operating Services, LLC* (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-14-8, 80 NRC 71, 74-75 (2014). At the same time, we dismissed BREDL's proposed contention as a challenge to the new rule. *Id.* at 81. *See generally* Continued Storage of Spent Nuclear Fuel; Final Rule, 79 Fed. Reg. 56,238 (Sept. 19, 2014); Generic

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tion to reopen and a proposed new contention that challenged the Continued Storage Rule's lack of safety findings, later followed by three additional filings: a petition to supplement the Final SEIS to include the Continued Storage Rule and GEIS, a motion to lodge an associated "placeholder" contention challenging the NRC's reliance on the rule and GEIS, and another motion to reopen.[74] We denied the petitions and motions.[75] Resolution of these "continued storage" claims ended the contested proceeding.

D. The Uncontested Proceeding

All safety and environmental matters relevant to the combined license application, except those resolved in the contested combined license proceeding, are subject to our review in the uncontested proceeding.[76] The uncontested portion of the proceeding begins once the Staff has completed both its environmental and safety reviews. Here, the Final SEIS was completed in 2010; the release of the COL Final SER on January 12, 2017, triggered the uncontested proceeding.[77] Shortly after the Staff issued the COL Final SER, we received the Staff's statement in support of the uncontested hearing, which serves as the Staff's initial testimony and provides an overview of its safety and environmental review of the application.[78] Consistent with the design-centered review approach,

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Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel, 79 Fed. Reg. 56,263 (Sept. 19, 2014); "Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel" (Final Report), NUREG-2157, vols. 1-2 (Sept. 2014) (ML14196A105, ML14196A107).

[74] Petition to Suspend Final Decisions in All Pending Reactor Licensing Proceedings Pending Issuance of Waste Confidence Safety Findings (Sept. 29, 2014; errata filed Oct. 1, 2014); Petitioner's Motion for Leave to File a New Contention Concerning the Absence of Required Waste Confidence Safety Findings in the Licensing Proceeding at North Anna Nuclear Power Plant (Sept. 29, 2014); Petition to Supplement Reactor-Specific Environmental Impact Statements to Incorporate by Reference the Generic Environmental Impact Statement for Continued Spent Fuel Storage (Jan. 28, 2015); Blue Ridge Environmental Defense League's Hearing Request and Petition to Intervene in Combined License Proceeding for North Anna Unit 3 Nuclear Power Plant (Apr. 22, 2015); Blue Ridge Environmental Defense League's Motion to Reopen the Record of Combined License Proceeding for North Anna Unit 3 Nuclear Power Plant (Apr. 22, 2015).

[75] *Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), CLI-15-15, 81 NRC 803, 804-05 (2015); *DTE Electric Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-15-10, 81 NRC 535, 544 (2015); *DTE Electric Co.* (Fermi Nuclear Power Plant, Unit 3), CLI-15-4, 81 NRC 221, 242 (2015). Several petitioners sought review of the Continued Storage Rule and GEIS in the D.C. Circuit. The court denied the petitions for review, *New York v. NRC,* 824 F.3d 1012 (D.C. Cir. 2016), and a subset of petitioners, including BREDL, filed a petition for rehearing *en banc* that was also denied. *New York v. NRC,* No. 14-1210 (D.C. Cir. Aug. 8, 2016) (ML16221A602) (order denying petition for rehearing *en banc*).

[76] *See, e.g., Fermi,* CLI-15-13, 81 NRC at 564-65.

[77] *See* Ex. NRC-009, Final SEIS; *see also* NRC-007, COL Final SER.

[78] Ex. NRC-001, Staff Information Paper.

the Staff's paper focused on "[n]onroutine matters . . . that relate to any unique features of the facility or novel issues that arose as part of the review process."[79]

We issued a Notice of Hearing on January 31, 2017, which set a schedule for pre-hearing filings.[80] In that notice, we invited interested states, local government bodies, and federally recognized Indian tribes to provide a statement of issues for us to consider as part of the uncontested proceeding.[81] We also issued pre-hearing questions to both the Staff and Dominion and received their written responses prior to the hearing.[82]

The hearing presentations were made by witness panels.[83] The first panel of witnesses for Dominion and the Staff gave an overview of the license application and the Staff's review, respectively. The second panel focused on safety issues, and the third panel focused on environmental issues. Overall, the Staff made available seventy-four witnesses at the hearing, including scheduled panelists.[84] Ten witnesses offered testimony on behalf of Dominion at the hearing and in pre-filed testimony.[85]

Among other things, Dominion's overview panelists discussed the general qualifications and nuclear experience of Dominion, the selection of the ESBWR certified design, variances from the ESP, and environmental permits.[86] The Staff panelists provided background on the review of the COL application and a summary of the Staff's safety and environmental findings under 10 C.F.R. § 52.97(a); NEPA sections 102(2)(A), (C), and (E); and 10 C.F.R. § 51.107(a).[87]

The safety panel focused on particular novel issues in the Staff's review: (1) changes to the probabilistic seismic hazard analysis and ground motion re-

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[79] *Id.* at 2.

[80] Dominion Virginia Power, North Anna Unit 3, 82 Fed. Reg. 8864 (Jan. 31, 2017).

[81] *Id.* at 8864-65. We did not receive any statements in response to this invitation.

[82] Order (Transmitting Pre-Hearing Questions) (Feb. 17, 2017) (unpublished) (Pre-Hearing Question Order); Ex. NRC-004, Staff Pre-Hearing Responses; Ex. DVP-003, Dominion Virginia Power's Responses to Pre-Hearing Questions (Mar. 2, 2017) (ML17086A232) (Dominion Pre-Hearing Responses).

[83] A scheduling note set forth the topics and order of presentations for the hearing. Scheduling Note, "Hearing on Combined License for North Anna Nuclear Plant, Unit 3: Section 189a. of the Atomic Energy Act (Public Meeting)" (Mar. 13, 2017) (ML17073A161).

[84] *See* NRC Staff Revised Witness List (Mar. 16, 2017). Seventeen of the listed witnesses did not appear at the hearing. The Staff made available six additional witnesses — Emil Tabakov, Richard Turtil, Richard Clement, Joe Ashcraft, Nilesh Chokshi, and Lauren Kent — not previously included on its witness list. *Compare id.,* Attach. at 1-3, *with* Tr. at 12-13 (Ms. Carpentier).

[85] *See Dominion Virginia Power's Revised Witness List* (Mar. 16, 2017); Ex. DVP-001-R, Dominion Pre-Filed Testimony; Tr. at 10 (Mr. Lewis). David Hinds, who was not included on Dominion's revised witness list, also offered testimony at the hearing. *See* Tr. at 106-08 (Mr. Hinds).

[86] *See* Tr. at 16-43; Ex. DVP-004, Dominion Virginia Power, Mandatory Hearing on Combined License for North Anna Power Station, Unit 3 — Overview Panel (Mar. 23, 2017) (ML17086A233).

[87] *See* Tr. at 44-76; Ex. NRC-010, Staff Overview Presentation.

sponse spectra following the 2011 Mineral, Virginia earthquake; (2) the certified seismic design response spectra (CSDRS) exceedances and their effect on site-specific structures, systems, and components; and (3) fuel assembly and control rod structural response.[88] The environmental panel first discussed the ESP Final EIS to provide context for the environmental review associated with the COL application. The panel went on to address the resolution of issues left open at the time of the ESP environmental analysis, the Staff's review process for the COL Final SEIS, and the Staff's process for considering new and potentially significant information following publication of the COL Final SEIS.[89] These issues are discussed further in section II.

Following the hearing, we posed two additional questions to the Staff.[90] The Staff's written response was admitted as an exhibit, and after adopting corrections to the hearing transcript, we closed the evidentiary record.[91]

II. DISCUSSION

Although our review encompassed the entire application, our decision discusses just a few of the safety and environmental topics addressed during the uncontested portion of the proceeding. We first consider Dominion's requested exemptions from our regulatory requirements and departures from the ESBWR certified design. Our discussion then turns to site-specific and novel issues.

A. Exemptions and Departures

Dominion requested five exemptions and identified six departures from the ESBWR certified design.[92] Where a combined license applicant references a

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[88] *See* Tr. at 77-108; Ex. DVP-005, Dominion Virginia Power, Mandatory Hearing on Combined License for North Anna Power Station, Unit 3 — Safety Panel (Mar. 23, 2017) (ML17086A234) (Dominion Safety Presentation); Ex. NRC-011, Combined License Application Review North Anna 3 (NA3) — Safety Panel (Mar. 23, 2017) (ML17086A261) (Staff Safety Presentation).

[89] *See* Tr. at 109-55; Ex. DVP-006, Dominion Virginia Power, Mandatory Hearing on Combined License for North Anna Power Station, Unit 3 — Environmental Panel (Mar. 23, 2017) (ML17086A235); Ex. NRC-012, Combined License Application Review North Anna Unit 3 — Environmental Panel (Mar. 23, 2017) (ML17086A262) (Staff Environmental Presentation).

[90] Order (Transmitting Post-Hearing Questions) (Mar. 30, 2016), at 2 (unpublished) (Post-Hearing Question Order).

[91] Order (Adopting Proposed Transcript Corrections, Admitting Post-Hearing Exhibit, and Closing the Record of the Proceeding) (Apr. 24, 2017) (unpublished).

[92] Ex. NRC-001, Staff Information Paper, at 13-19; *see* Ex. NRC-005L, Dominion, North Anna 3, Combined License Application, Parts 3, 4, 5, 7, 8 & 10 (various dates), pt. 7 (ML17086A257) (COLA Departures Report).

certified design, changes to the design may be made in the combined license if proposed as a departure from the certified design. Some departures may be made without prior Commission approval.[93] But departures that involve a change to the design as described in the rule certifying the design require an exemption from our regulations.[94] The Staff may approve an exemption where it finds that the exemption is authorized by law, will not present an undue risk to the public health and safety, is consistent with the common defense and security, and special circumstances exist that warrant the exemption.[95] In addition, the Staff must determine that the special circumstances outweigh any decrease in safety resulting from the reduction in standardization that may result from the exemption.[96]

Exemption 1 removes certain requirements pertaining to material control and accounting for special nuclear materials, such that the same requirements apply to both Part 52 and Part 50 licensees.[97] This exemption has been granted to other combined license holders.[98] Dominion requested four additional exemptions from the ESBWR certified design. The Staff's technical evaluation of these exemptions is described in the Final SER.[99] And the ACRS reviewed the exemptions, found them acceptable, and recommended their approval.[100]

Exemption 2 relates to a departure from the certified design: NAPS DEP 8.1-1, "Electrical Power Distribution Functional Arrangement." This departure concerns a revision to the certified design (to incorporate an intermediate switchyard) to change the location information for the main generator circuit breaker.[101]

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[93] 10 C.F.R. pt. 52, app. E, VIII.B.5.a.

[94] *Id.* pt. 52, app. E, VIII.A.4. The requirements that combined license applicants must meet when seeking an exemption from the Commission's regulations are found at 10 C.F.R. § 52.93.

[95] *See id.* §§ 52.63(b)(1), 52.7, 50.12(a).

[96] *Id.* § 52.63(b)(1). Prior to the hearing, we asked the Staff to describe its environmental review of Dominion's requested exemptions. Pre-Hearing Question Order at 7. The Staff provided a discussion of the results of the environmental review it performed of new and potentially significant information. Ex. NRC-004, Staff Pre-Hearing Responses, at 15-16. The Staff stated that it found the environmental impacts of the exemptions to be bounded by the findings it had made in both the ESP Final EIS and the COL Final SEIS. *Id.* at 16.

[97] Ex. NRC-007, COL Final SER § 1.5.4; *see Southern Nuclear Operating Co.* (Vogtle Electric Generating Plant, Units 3 and 4), CLI-12-2, 75 NRC 63, 84 (2012) (citations omitted); Ex. NRC-001, Staff Information Paper at 14-15.

[98] Ex. NRC-001, Staff Information Paper at 14-15; *see, e.g., Vogtle,* CLI-12-2, 75 NRC at 84.

[99] *See* Ex. NRC-007, COL Final SER §§ 3.7.1.4, 8.1.4, 11.2.4, app. 19A.

[100] ACRS Letter at 1.

[101] Ex. NRC-001, Staff Information Paper, at 15; *see* Ex. NRC-007, COL Final SER § 8.1.2. Additionally, Dominion proposed a departure from Tier 2, NAPS DEP 8.1-2, "Switchyard Surge Protection." Ex. NRC-007, COL Final SER § 8.1.4, at 8-6. That departure involved exceptions

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The Staff found that the exemption met our regulatory criteria. The underlying purpose of the requirement "is to identify the standard ESBWR switchyard layout and configuration that will function in a manner the NRC has determined [will satisfy] NRC requirements."[102] The Staff concluded that the switchyard, with the change in configuration, would continue to perform its intended function and meet the underlying purpose of the requirement.[103] The Staff found that special circumstances — namely, site-specific space constraints — outweighed the reduction in standardization and that there was no significant decrease in safety because the proposed exemption would not change the function of the switchyard.[104]

Exemption 3 concerns a departure to account for the site-specific seismological and geological conditions at the site, NAPS DEP 3.7-1, "Ground Response Spectra for Seismic Structural Loads and Floor Response Spectra." This issue is discussed further in section II.B.1.

Exemption 4, which is associated with NAPS DEP 12.3-1, "Liquid [Radioactive Waste] Effluent Discharge Piping Flow Path," involves a revision to the liquid waste management system to simplify the design and construction of the cooling tower blow-down line.[105] The certified design defines the liquid waste management system as either returning processed water to the condensate system or discharging water to the environment via the circulating water system. Dominion seeks an exemption to use the liquid radioactive waste effluent discharge pipeline as a discharge mechanism.[106] The Staff evaluated the exemption request and found it acceptable.[107] Specifically, the Staff found that the change in the design would not alter the requirements of liquid radioactive waste release and, since Dominion asserted that it only planned to release liquid radioactive waste in unusual circumstances, the effluent would be properly diluted using a controlled procedure.[108] The Staff further determined that special circumstances are present because the application of the certified design in this case is not necessary to achieve the underlying purpose of the rule.[109] The Staff also found

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from the Institute of Electrical and Electronics Engineers Standard C62.23. The Staff reviewed each proposed exception and found that the section either was inapplicable to North Anna Unit 3 or that Dominion's departure provided equivalent protection. *Id.* § 8.1.4, at 8-7 to 8-8.

[102] *Id.* § 8.1.4, at 8-5.

[103] *Id.*

[104] *Id.* § 8.1.4, at 8-5 to 8-6.

[105] Ex. NRC-001, Staff Information Paper, at 18; Ex. NRC-007, COL Final SER § 11.2.2.

[106] Ex. NRC-001, Staff Information Paper, at 14; Ex. NRC-007, COL Final SER § 11.2.4, at 11-6 to 11-7.

[107] Ex. NRC-007, COL Final SER § 11.2.4, at 11-10.

[108] *Id.* § 11.2.4, at 11-8 to 11-9.

[109] *Id.* § 11.2.4, at 11-9 to 11-10.

that there will be no reduction in safety resulting from the reduction in standardization due to the exemption.[110]

Dominion proposed Exemption 5, which relates to two departures: NAPS DEP 19A-1, "Design of Structures Housing [Regulatory Treatment of Non-Safety Systems (RTNSS)] Equipment for Hurricane-Wind-Generated Missiles," and NAPS DEP 3.7-1, "Non-seismic Structures that House RTNSS Criterion C systems," to account for the hurricane winds and hurricane-wind-generated missiles more severe than contemplated in the certified design.[111] RTNSS structures are designed to withstand the hurricane-wind-generated missile spectra in the certified design and the site-specific missile spectra and velocities derived using criteria in Regulatory Guide 1.221, "Design-Basis Hurricane and Hurricane Missiles for Nuclear Power Plants."[112] Following its receipt of the ESBWR certified design application, the Staff issued Regulatory Guide 1.221, which updated the definition of maximum hurricane winds and hurricane-wind-generated missile parameters.[113] The exemption and departures would address the site-specific hurricane-wind-generated missile velocities that exceed those set forth in the DCD.[114] Exemption 5 updates Tier 1 information to specify the use of Regulatory Guide 1.221 methodology for deriving site-specific missile velocities for design of structures housing RTNSS equipment when the site-specific missiles are more severe than specified in the certified design.[115] The Staff evaluated the exemption and found it acceptable.[116]

B. Site-Specific Issues Addressed in the Proceeding

1. Safety-Related Issues

a. Revisions to the Application Related to the Mineral, Virginia Earthquake

On August 23, 2011, a magnitude 5.8 earthquake occurred in Mineral, Vir-

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[110] *Id.*

[111] Ex. NRC-007, COL Final SER, app. 19A, at 19-13 to 19-14; Ex. NRC-001, Staff Information Paper, at 14-15, 18-19.

[112] Ex. NRC-005L, COLA Departures Report, pt. 7, at 3-12; *see* ESBWR DCD, Tier 1 Material, tbl. 5.1-1 & n.7; "Design-Basis Hurricane and Hurricane Missiles for Nuclear Power Plants," Regulatory Guide 1.221 (Oct. 2011) (ML110940300). Regulatory Guide 1.221 provides one method the Staff considers acceptable for fulfilling the requirements of General Design Criteria 2 and 4 and 10 C.F.R. §§ 100.10(c)(2), 100.20(c)(2) and 100.21(d). *Id.* at 1-2.

[113] Ex. NRC-001, Staff Information Paper, at 18-19; Ex. NRC-005L, COLA Departures Report, pt. 7, at 1-17.

[114] Ex. NRC-005L, COLA Departures Report, pt. 7, at 1-17.

[115] *Id.* at 3-13.

[116] Ex. NRC-007, COL Final SER, app. 19A, at 19-11 to 19-13; Ex. NRC-001, Staff Information Paper, at 18-19.

ginia, 11 miles southwest of the North Anna site.[117] The Mineral earthquake was one of the largest earthquakes in the Central and Eastern United States in recent history.[118] The earthquake exceeded the design basis earthquake for the operating units at the site, and Dominion shut down both units and performed inspections.[119] Following the earthquake, and in view of the publication of new seismic source characterization and ground motion models for use in seismic hazard assessments for nuclear plants in the Central and Eastern United States, the Staff requested that Dominion provide additional information on the North Anna Unit 3 probabilistic seismic hazard analysis.[120]

Using the seismic hazard analysis results, Dominion recalculated the ground motion response spectra at the site and compared the new findings to the certified seismic design response spectra (CSDRS), the seismic design basis for the ESBWR design, and recordings of the Mineral earthquake.[121] Dominion found that the North Anna site ground motion response spectra exceeded the CSDRS by no more than ten percent at certain frequencies but concluded that the Mineral earthquake was bounded by the CSDRS.[122] Dominion performed further analyses, discussed below, to confirm that the plant could accommodate the increased ground motion.[123] The Staff independently confirmed Dominion's calculations and concluded that the updated site-specific probabilistic seismic

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[117] Ex. NRC-001, Staff Information Paper, at 29; Tr. at 86-87 (Mr. Graizer).

[118] Tr. at 86 (Mr. Graizer).

[119] *Id.*; Ex. NRC-011, Staff Safety Presentation, at 7.

[120] Tr. at 79 (Mr. Waddill); Ex. NRC-001, Staff Information Paper, at 29; *see* RAI Letter 102 (June 25, 2012) (ML12177A435); *see also* "Central and Eastern United States Seismic Source Characterization for Nuclear Facilities," NUREG-2115, vols. 1-6 (Feb. 2012) (ML12048A776 (package)). Dominion sought a variance from the North Anna ESP to account for the actual elevation of the reactor and fuel building foundations in the combined license application and to use the updated models, data, and methodologies, rather than those previously used at the ESP stage. Ex. NRC-005L, COLA Departures Report, pt. 7, at 2-4 to 2-7; Ex. NRC-001, Staff Information Paper, at 21-22; Tr. at 87 (Mr. Graizer); Ex. NRC-007, COL Final SER § 2.5.2.2, at 2-158 to 2-159. Based on the redefinition of the ground motion response spectra and the updated seismic model, the Staff found Dominion's requested variance acceptable. Ex. NRC-007, COL Final SER § 2.5.2.4; Ex. NRC-001, Staff Information Paper, at 21-22.

[121] Tr. at 79 (Mr. Waddill); Ex. NRC-001, Staff Information Paper, at 29; Ex. NRC-011, Staff Safety Presentation, at 11-12; Ex. DVP-005, Dominion Safety Presentation, at 3-4; Ex. NRC-007, COL Final SER § 2.5.2.2, at 2-172 to 2-173.

[122] Ex. NRC-005B, COL FSAR § 3.7.1, at 3-4 to 3-5; *see* Ex. NRC-001, Staff Information Paper, at 29; Ex. NRC-011, Staff Safety Presentation, at 11-12.

[123] Ex. NRC-001, Staff Information Paper, at 29; *see* Ex. NRC-007, COL Final SER § 3.7.2.4, at 3-62 to 3-63.

hazard analysis and ground motion response spectra developed for the proposed new plant were acceptable.[124]

b. Ground Response Spectra for Seismic Structural Loads and Floor Response Spectra

General Design Criterion 2 requires that safety-related structures at nuclear power plants be able to withstand the most severe earthquakes historically reported for the site and the area surrounding the site.[125] Dominion proposed a departure from the certified design, NAPS DEP 3.7-1, "Ground Response Spectra for Seismic Structural Loads and Floor Response Spectra," to include both the CSDRS and the site-specific foundation input response spectra (FIRS) for each seismically qualified structure.[126] As part of its seismic analyses, Dominion determined that the North Anna Unit 3 site horizontal and vertical FIRS for the reactor building and fuel building, control building, and firewater service complex structures were not bounded by the CSDRS at all frequencies.[127] To support the departure, Dominion performed site-specific soil-structure interaction analyses of these structures and used the updated seismic loads and the non-seismic standard design loads to evaluate the structural adequacy of the buildings.[128] As a result of these analyses, Dominion proposed changes such as the arrangement of steel reinforcements and shear ties and increasing the size of certain welds, anchor bolts, and a steel girder.[129]

In considering NAPS DEP 3.7-1, the Staff reviewed the information Dominion provided in its application and Dominion's responses to RAIs.[130] The Staff undertook a confirmatory analysis of Dominion's results and performed technical audits of Dominion's site-specific seismic analysis and structural evaluation

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[124] Ex. NRC-007, COL Final SER §§ 2.5.2.4, 3.7.2.4; Tr. at 88 (Mr. Graizer); Ex. NRC-001, Staff Information Paper, at 30; Ex. NRC-011, Staff Safety Presentation, at 10, 13.

[125] 10 C.F.R. pt. 50, app. A, Criterion 2.

[126] Ex. NRC-001, Staff Information Paper, at 15, 30; Ex. NRC-007, COL Final SER § 3.7.1.2; Tr. at 90-91 (Mr. Chakravorty).

[127] Tr. at 79-80 (Mr. Waddill); Ex. NRC-007, COL Final SER § 3.7.1.4, at 3-25.

[128] Tr. at 80-81 (Mr. Waddill), 92 (Mr. Chakravorty); Ex. NRC-001, Staff Information Paper, at 30; Ex. NRC-007, COL Final SER § 3.7.1.2.

[129] Ex. NRC-005B, COL FSAR, app. 3G §§ 3G.7-3G.10; Ex. NRC-007, COL Final SER § 3.8.4.4; Tr. at 81-82 (Mr. Waddill) (describing minor adjustments to certain components, including larger anchor bolts for fuel racks and in the buffer pool), 92-93 (Mr. Chakravorty); Ex. NRC-011, Staff Safety Presentation, at 19. Dominion did not propose changes to the thickness of concrete walls or slabs. Tr. at 81 (Mr. Waddill), 93 (Mr. Chakravorty); Ex. NRC-001, Staff Information Paper, at 31.

[130] Ex. NRC-007, COL Final SER §§ 3.7, 3.8; Ex. NRC-001, Staff Information Paper, at 31.

of the certified design structures.[131] For example, the Staff examined Dominion's soil-structure interaction analyses for the reactor building and fuel building, the control building, and the firewater service complex.[132] The Staff found Dominion's final soil-structure interaction input response spectra for the reactor building and fuel building and the control building soil-structure interaction analysis acceptable because Dominion's methodology comported with applicable Staff guidance.[133] The Staff also found that the surface response generally bounds the performance-based surface response spectra for the two embedment configurations, and the soil-structure interaction input spectra comply with the minimum horizontal ground motion requirement set forth in our regulations.[134] In response to an RAI, Dominion tailored its soil-structure interaction analysis for the firewater service complex to include a new control motion at the bottom of the concrete fill.[135] The Staff reviewed Dominion's analysis and found it acceptable because it included soil-structure interaction input response spectra applied at both the foundation level and the concrete fill and the results of the two sets of soil-structure interaction analyses were enveloped to develop the site-specific seismic demand of the firewater service complex. The Staff determined that the soil-structure interaction input spectra met the minimum horizontal ground motion requirement set forth in our regulations.[136]

Because NAPS DEP 3.7-1 involves a change to Tier 1 information, Dominion's proposed departure from the ESBWR certified design requires an associated exemption from our regulations.[137] The Staff evaluated Dominion's request for an exemption regarding ground motion response spectra and found that it met the regulatory requirements for approval of the exemption.[138] Overall, the Staff found that changes to the certified design were minimal and that the modifications to the design augmented the certified design for the site-specific seismic conditions present at North Anna Unit 3.[139] The seismic design and analyses

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[131] Ex. NRC-001, Staff Information Paper, at 31; Ex. NRC-007, COL Final SER §§ 3.7, 3.8; Ex. NRC-011, Staff Safety Presentation, at 20; Tr. at 93-94 (Mr. Chakravorty).

[132] Ex. NRC-007, COL Final SER § 3.7.1.4, at 3-31 to 3-34.

[133] *Id.* at 3-33; *see* "Interim Staff Guidance on Ensuring Hazard-Consistent Seismic Input for Site Response and Soil Structure Interaction Analyses," DC/COL-ISG-017 (Mar. 24, 2010) (ML-100570203).

[134] Ex. NRC-007, COL Final SER § 3.7.1.4, at 3-33; *see* 10 C.F.R. pt. 50, app. S, IV.(a)(1)(i).

[135] Ex. NRC-007, COL Final SER § 3.7.1.4, at 3-34; Letter from Mark D. Mitchell, Vice President — Generation Constr., Dominion, to NRC Document Control Desk (Feb. 23, 2015), encl. 5 (ML15056A047).

[136] Ex. NRC-007, COL Final SER § 3.7.1.4, at 3-34; *see* 10 C.F.R. pt. 50, app. S, IV.(a)(1)(i).

[137] Ex. NRC-001, Staff Information Paper, at 13, 15, 16-17, 30; Ex. NRC-007, COL Final SER § 3.7.1.2; *see* 10 C.F.R. pt. 52, app. E, III.B.; *id.* §§ 50.12, 52.7, 52.63(b)(1).

[138] Ex. NRC-007, COL Final SER § 3.7.1.4, at 3-26; *see* 10 C.F.R. § 50.12(a)(1).

[139] Ex. NRC-007, COL Final SER § 3.7.1.4, at 3-26.

will be confirmed via appropriate inspections, tests, analyses, and acceptance criteria (ITAAC).[140]

c. Certified Seismic Design Response Spectra Exceedances and Fuel Analysis

General Design Criterion 2 requires that the fuel assembly and control rod blade mechanical designs are capable of withstanding the effects of natural phenomena.[141] As a result of the site-specific seismic spectra exceedances identified in NAPS DEP 3.7-1, the Staff requested additional information from Dominion to demonstrate that both the fuel assembly and the control rod blade mechanical loads were within the bounds of the certified design.[142] Dominion responded that it had analyzed the fuel assembly and concluded that the combined load accelerations met the acceptance criteria.[143] Dominion also found that there was sufficient margin in the control rod design to account for anticipated dynamic loads along with site-specific seismic loads.[144]

With respect to the fuel assembly, the Staff evaluated Dominion's methodology and calculations and confirmed that Dominion had updated its application to reflect the analysis described in its RAI response.[145] The Staff concluded that the site-specific fuel assembly design complies with General Design Criterion 2.[146] Regarding the control blade mechanical loads, the Staff examined Dominion's methodology, found "ample margin in the site-specific calculation of fuel assembly displacement to the acceptance limits defined in the [certified design]," and found Dominion's proposed site-specific ITAAC acceptable.[147]

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[140] *Id.* at 3-24.

[141] 10 C.F.R. pt. 50, app. A, Criterion 2. Control rod blades "perform the functions of power shaping, reactivity control, and scram reactivity insertion for safe shutdown response." ESBWR DCD, Tier 2 Material § 4.2.2.2.

[142] Request for Additional Information 130, North Anna, Unit 3 (July 24, 2014) (ML14283A563); Ex. NRC-011, Staff Safety Presentation, at 24; Tr. at 95 (Mr. Thomas).

[143] Letter from Mark D. Mitchell, Vice President — Generation Constr., Dominion, to NRC Document Control Desk (May 19, 2016), encl. 1, "Revised Response to NRC RAI Letter 130, RAI 7580 Question 04.02-1," at 2 (ML16146A277) (RAI 130 Response); Ex. NRC-007, COL Final SER § 4.4; Tr. at 95-96 (Mr. Thomas).

[144] RAI 130 Response, encl. 1, at 3; Ex. NRC-007, COL Final SER § 4.4; Tr. at 95-96 (Mr. Thomas).

[145] Ex. NRC-007, COL Final SER § 4.4, at 4-3 to 4-6.

[146] *Id.* § 4.4, at 4-6; *see* Ex. NRC-001, Staff Information Paper, at 31; Ex. NRC-011, Staff Safety Presentation, at 26; Tr. at 96 (Mr. Thomas).

[147] Ex. NRC-007, COL Final SER § 4.4, at 4-6; *see* Ex. NRC-001, Staff Information Paper, at 31-32.

Accordingly, the Staff found that the control rod blade design complies with General Design Criterion 2.[148]

d. Draft Combined License for North Anna, Unit 3

In January 2017, the Staff made available a draft combined license for proposed Unit 3.[149] Prior to the hearing, we posed several questions to the parties regarding the conditions proposed to be included in the license.[150] Among other things, we sought clarification from the Staff on proposed condition 2.D.(12)(f)2. regarding mitigation strategies for beyond-design-basis external events, which differs from the analogous license condition in the ESBWR RCOLA for Fermi Unit 3.[151] To align the license with the condition described in the COL Final SER, the Staff proposed revising the draft condition to match the equivalent condition in the Fermi Unit 3 license.[152]

We also sought additional information regarding proposed condition 2.D.(11)(a). In pre-hearing question 7, we asked the parties to "provide the regulatory basis for the requirement that the schedule for implementation of the operational programs listed in FSAR Table 13.4-201, 'Operational Programs Required by NRC Regulations,' includes site-specific Severe Accident Management Guidelines."[153] Dominion explained that the ESBWR certified design requires development of an accident management program and severe accident management guidelines (SAMGs).[154] The Staff noted Dominion's proposal of the license condition and the inclusion of an analogous condition in the reference combined license for Fermi Unit 3.[155]

At the hearing, we inquired further about the condition.[156] The Staff explained

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[148] Ex. NRC-007, COL Final SER § 4.4, at 4-6 to 4-7; *see* Ex. NRC-001, Staff Information Paper, at 31-32; Ex. NRC-011, Staff Safety Presentation, at 26; Tr. at 96 (Mr. Thomas).

[149] Ex. NRC-002, Draft Combined License, North Anna, Unit 3, Dominion Virginia Power, Docket No. 52-017 (Jan. 18, 2017) (ML17086A242) (Draft License); *see* Ex. NRC-001, Staff Information Paper, at 2.

[150] *See* Pre-Hearing Question Order at 4-5.

[151] *Id.* at 5; *compare* Ex. NRC-002, Draft License, at 15, *with* Combined License for Enrico Fermi Nuclear Plant Unit 3, DTE Electric Company, License No. NPF-95 (May 1, 2015), at 15 (ML15084A170) (the former requiring that the overall integrated plan include provisions "to ensure" that accident mitigation procedures and guidelines are "coherent and comprehensive," while the latter requires that the overall integrated plan include provisions "to address" accident mitigation procedures and guidelines).

[152] Ex. NRC-004, Staff Pre-Hearing Responses, at 7; *see* Ex. NRC-007, COL Final SER § 14.2.5.

[153] Pre-Hearing Question Order at 4; *see* Ex. NRC-002, Draft License, at 9.

[154] Ex. DVP-003, Dominion Pre-Hearing Responses, at 11-12.

[155] Ex. NRC-004, Staff Pre-Hearing Responses, at 6.

[156] *See* Tr. at 102-03 (Chairman Svinicki).

that (as noted above) the ESBWR certified design requires that each combined license holder develop a severe accident management program.[157] To address the requirement, therefore, the Staff explained that "the COL applicant for Fermi, Unit 3, which references the ESBWR, proposed a license condition that required a schedule for implementing site-specific" SAMGs.[158] This license condition was approved and included in the Fermi 3 combined license. Dominion proposed an equivalent license condition for North Anna Unit 3 to maintain consistency among the ESBWR plants.[159]

Following the hearing, the Staff filed a revised draft license, which includes all changes it had previously committed to implement, along with additional administrative changes proposed based on Dominion's comments.[160]

2. Environmental Issues

a. Post-ESP Environmental Review

As discussed previously, the Staff's environmental review of Dominion's combined license application takes the form of a supplement to the 2006 ESP Final EIS.[161] The ESP environmental review, like the safety review, relied on

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[157] *See* Ex. NRC-013, NRC Staff Responses to Post-Hearing Questions (Apr. 6, 2017), Attach. A, at 2 (ML17115A364) (Staff Post-Hearing Response); ESBWR DCD, Tier 2 Material § 18.9 (referencing Licensing Topical Report NEDO-33217, "ESBWR Man-Machine Interface System and Human Factors Engineering Implementation Plan," rev. 6 (Feb. 2010) § 3.2.4.4, at 40 (ML100480284) (non-proprietary version) (stating that each COL applicant referencing the ESBWR is responsible for verifying, validating, and maintaining emergency operating procedures and severe accident guidelines)).

[158] Ex. NRC-013, Staff Post-Hearing Response, Attach. A, at 2.

[159] *Id.* The license condition sets a schedule for development of SAMGs but does not impose any particular substantive SAMG requirements. *Id.* The Staff also acknowledged that an industry-wide SAMG initiative is under way, whereby individual COL holders may in the future undertake written commitments to follow an approach to maintaining SAMGs described by the Nuclear Energy Institute. This approach, which currently is being implemented by operating reactor licensees, could replace the license condition in the future. *Id.,* Attach. A, at 2-3. In the meantime, "the SAMG license condition or commitment approach, as described above for the COL holders referencing the ESBWR design, provides a regulatory mechanism to transition between construction and operation of new reactors." *Id.,* Attach. A, at 3.

[160] *Id.,* Attach. B; *see id.,* Attach. A, at 1; *see* Post-Hearing Question Order at 2 (requesting that the Staff submit to us a revised draft license).

[161] Ex. NRC-009, Final SEIS § 1.0; *see* Ex. NRC-001, Staff Information Paper, at 4. The Staff testified that both the Final EIS for the ESP and the Final SEIS for the COL include analysis of "construction" activities that would be considered "preconstruction" following the 2007 publication of the Limited Work Authorization (LWA) Rule. *See* Ex. NRC-001, Staff Information Paper, at 4; Tr. at 118 (Mr. Kugler). The statements of consideration for the LWA Rule stated that ESP

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certain design parameters based on seven potential reactor designs (the "plant parameter envelope") rather than on a specific plant design.[162] The Staff's environmental analysis associated with the ESP resolved many of the environmental issues related to the North Anna site, but Dominion and the Staff deferred several issues to the combined license stage.[163] Among other issues, as permitted by our regulations, Dominion and the Staff deferred to the combined license stage the analyses of need for power and energy alternatives.[164] Certain information was not available until Dominion selected a reactor design, including environmental impacts to water quality from plant operation; chronic effects of electromagnetic fields on human health; certain system design alternatives; environmental impacts from accidents and severe accident mitigation alternatives; and impacts from the fuel cycle, transportation, and decommissioning.[165] And both Dominion and the Staff considered new and potentially significant developments following publication of the ESP Final EIS for those issues resolved as part of the ESP environmental review.[166]

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applications under consideration as of the effective date of the final rule — a category that included the North Anna ESP — need not comply with new requirements for site-preparation activities and would continue to be governed by the regulations in effect prior to the rule revision. Limited Work Authorizations for Nuclear Power Plants; Final Rule, 72 Fed. Reg. 57,416, 57,424 (Oct. 9, 2007); *see* Early Site Permit at 4. Accordingly, the ESP allows Dominion to perform site preparation activities pursuant to the regulations in effect when Dominion submitted its ESP application. *See* 10 C.F.R. § 50.10(e)(1) (2006); *see also* Early Site Permit at 4, app. E § 1.1.

[162] ESP Final EIS § 3.2; Ex. NRC-009, Final SEIS § 1.1.1; Tr. at 117 (Mr. Kugler).

[163] Ex. NRC-001, Staff Information Paper, at 4; Ex. NRC-012, Staff Environmental Presentation, at 4.

[164] Ex. NRC-012, Staff Environmental Presentation, at 7; Tr. at 120 (Mr. Kugler); ESP Final EIS § 1.1.3; *id.* § 10.0, at 10-2. In response to the notice of hearing, a member of the public expressed concern regarding the Staff's analysis of the need for power. Letter from Erin Noakes, to Denise McGovern, Office of the Secretary, NRC (Feb. 4, 2017) (ML17037D071). Ms. Noakes argued that the base-load demand forecast was insufficient and that the consideration of alternatives (both those that require and do not require new generating capacity) was inadequate. *See id.* at 1 (summarizing concerns). Prior to the hearing we asked the Staff and Dominion to respond to these comments. Pre-Hearing Question Order at 8. Dominion noted that, while Ms. Noakes had highlighted Dominion's 2007 need-for-power analysis, a revised analysis from 2013 supports a continued need for power. *See* Ex. DVP-003, Dominion Pre-Hearing Responses, at 20-27. The Staff testified that it had examined each of Dominion's updated analyses, most recently in 2016. Tr. at 142 (Mr. Mussatti). And the Staff stated that it found Dominion's analysis reasonable. Ex. NRC-004, Staff Pre-Hearing Responses, at 19.

[165] Ex. NRC-012, Staff Environmental Presentation, at 7; Tr. at 120-21 (Mr. Kugler); Ex. NRC-009, Final SEIS § 9.3; ESP Final EIS § 5.12, tbl. 9-2, app. J, tbl. J-3.

[166] Tr. at 111 (Mr. Banks), 122-23 (Ms. Dozier); Ex. NRC-009, Final SEIS § 1.1.1; Ex. DVP-003, Dominion Pre-Hearing Responses, at 27-30.

b. Analysis of New Information Following Publication of the COL Final SEIS

Since the 2010 publication of the Final SEIS, both Dominion and the Staff have evaluated new information to determine whether a supplement to the Final SEIS was warranted in accordance with 10 C.F.R. § 51.92.[167] We asked the Staff to describe the issues that it considered in its review of new and potentially significant information since publication of the Final SEIS.[168] The Staff explained that it had evaluated approximately fifty new issues to determine whether they painted a "seriously different picture" of the environmental impacts from that set forth in the Final SEIS.[169] The Staff listed the most noteworthy issues it considered: the Continued Storage Rule, consultation under the Endangered Species Act, consultation regarding historic and cultural resources, and new information involving Dominion's proposed use of barges to transport large reactor components.[170] In addition, the Staff considered new information related to severe accident mitigation.[171]

The Staff testified that both the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) listed new species as either threatened or endangered after the Final SEIS was published.[172] First, in 2012 the NMFS listed as endangered under the Endangered Species Act a population segment of the Atlantic Sturgeon.[173] That species' range includes parts of the Mattaponi River, which would be used by barges carrying components for North Anna, Unit 3.[174] Second, FWS in 2015 listed as threatened the northern long-eared bat.[175] The bat's range includes the landscape around the North Anna

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[167] Ex. NRC-001, Staff Information Paper, at 32; Tr. at 114 (Mr. Banks), 125-26 (Ms. Dozier); Ex. DVP-003, Dominion Pre-Hearing Responses, at 27-30; Ex. NRC-004, Staff Pre-Hearing Responses, at 20-21; *see Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 28 (2006) (providing the standard for when the Staff must supplement an EIS to account for new and significant information).

[168] Pre-Hearing Question Order at 8.

[169] Ex. NRC-004, Staff Pre-Hearing Responses, at 20; *see Sierra Club v. Froehlke,* 816 F.2d 205, 210 (5th Cir. 1987) (citing *Wisconsin v. Weinberger,* 745 F.2d 412, 421 (7th Cir. 1984)).

[170] Ex. NRC-004, Staff Pre-Hearing Responses, at 20-21.

[171] *Id.* at 25-27.

[172] *Id.* at 20; Tr. at 127 (Ms. Dozier).

[173] Endangered and Threatened Wildlife and Plants; Threatened and Endangered Status for Distinct Population Segments of Atlantic Sturgeon in the Northeast Region, 77 Fed. Reg. 5880 (Feb. 6, 2012).

[174] Ex. NRC-004, Staff Pre-Hearing Responses, at 20; U.S. Nuclear Regulatory Commission, Biological Assessment, North Anna Power Station Combined License Application, Louisa County, Virginia, Docket No. 52-017 (Apr. 2016), at 14 (ML16082A287) (NMFS BA).

[175] Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat With 4(d) Rule, 80 Fed. Reg. 17,974 (Apr. 2, 2015).

site.[176] Third, the Staff highlighted public concern about the potential for barges carrying reactor components to adversely affect the sensitive joint vetch, listed as a threatened plant species under the Endangered Species Act.[177] The Staff evaluated the impacts of the proposed North Anna project on each species in a Biological Assessment prepared for the NMFS and a Supplemental Biological Assessment prepared for FWS.[178] Overall, the Staff found that the proposed project would not adversely affect the evaluated species.[179] The NMFS and FWS both concurred in the Staff's assessment, concluding the Staff's Endangered Species Act consultations.[180]

In 2016, the Staff considered new information regarding Dominion's proposed use of barges.[181] Dominion proposes to transport large reactor components via the Mattaponi River to Walkerton, Virginia, to a temporary roll-off facility prior to transferring the components from barges to trucks for transport to the North Anna site.[182] The Staff considered the "potential direct, indirect, and cumulative impacts from [Dominion's] proposed process for transporting large reactor components by barge and truck to the site."[183] The Staff explained that it based its evaluation on information Dominion included in its application for a Clean Water Act § 404 permit from the Corps.[184] The Staff concluded that the new information did not merit supplementation of the SEIS.[185]

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[176] Ex. NRC-004, Staff Pre-Hearing Responses, at 20; U.S. Nuclear Regulatory Commission, Supplemental Biological Assessment, North Anna Combined License Application, Louisa County, Virginia, Docket No. 52-017 (Dec. 2016), at 26-27 (ML16312A319) (FWS Supplemental BA).

[177] Ex. NRC-004, Staff Pre-Hearing Responses, at 20; *see* FWS Supplemental BA at 27-29; Letter from Mark D. Mitchell, Vice President — Generation Constr., Dominion, to NRC Document Control Desk (Feb. 20, 2017) (ML17053B270).

[178] Ex. NRC-004, Staff Pre-Hearing Responses, at 20; Tr. at 136-37 (Mr. Doub); *see* NMFS BA; FWS Supplemental BA; *see also* "Consideration of New Information Regarding Updated Consultation Under Section 7 of the Endangered Species Act for North Anna Power Station Unit 3 Combined License Review" (undated) (ML16342B385).

[179] NMFS BA § 8.0; FWS Supplemental BA § 5.0; *see* Ex. NRC-004, Staff Pre-Hearing Responses, at 20; Tr. at 137 (Mr. Doub).

[180] Letter from Cindy Schulz, Field Supervisor, Va. Ecological Servs., FWS, to Joseph E. Donoghue, Office of New Reactors, NRC (Feb. 22, 2017) (ML17058B064); Letter from Kimberly B. Damon Randall, Assistant Reg'l Adm'r for Protected Res., NMFS, to Joseph Donoghue, Office of New Reactors, NRC (Nov. 3, 2016) (ML16319A265).

[181] Ex. NRC-004, Staff Pre-Hearing Responses, at 21, 24-25.

[182] *Id.* at 21.

[183] *Id.* at 24.

[184] *Id.*

[185] *Id.* at 25. The Staff's draft record of decision reflects that the Corps temporarily suspended Dominion's section 404 permit (originally issued in 2011) in November 2016 pending the conclusion of the Staff's Endangered Species Act consultation. Ex. NRC-003, U.S. Nuclear Regulatory

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With respect to severe accident mitigation alternatives (SAMAs), the Staff considered: changes to the ESBWR DCD; updates to Dominion's environmental report; and Dominion's and the Staff's site-specific seismic review following the 2011 earthquake.[186] The Staff also performed a SAMA sensitivity analysis pursuant to a recent decision in the Indian Point license renewal proceeding.[187] For each issue, the Staff concluded that the new information did not present a seriously different picture of the environmental impacts as described in the ESP EIS and COL SEIS.[188]

C. Findings

We now turn to the findings necessary for issuance of the combined license. We have conducted an independent review of the sufficiency of the Staff's safety findings. Although our decision today highlights the topics discussed above, our findings are based on the entire record. Based on the evidence presented in the uncontested hearing, including the Staff's review documents and the testimony provided, we find that the applicable standards and requirements of the AEA and NRC regulations have been met. The required notifications to other agencies or bodies have been duly made.[189] We find that Dominion is technically and financially qualified to engage in the activities authorized. We further find that there is reasonable assurance that the facility will be constructed and operated in conformity with the license, the provisions of the AEA, and the NRC's regulations and that issuance of the license will not be inimical to the common defense and security or to the health and safety of the public. In addition, we find that the proposed regulatory exemptions meet the standards in

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Commission, Docket No. 52-017, Combined License Application for North Anna Power Station Unit 3, Draft Summary Record of Decision (Jan. 18, 2017), at 8 (ML17086A243) (Draft Record of Decision). The Staff testified that the temporary suspension did not affect its conclusions in the Final SEIS. Ex. NRC-004, Staff Pre-Hearing Responses, at 18; Tr. 138 (Ms. Dozier). On April 17, 2017, the Corps reinstated the permit and added two special conditions regarding the use of a turbidity curtain in order to minimize the effects of the authorized activities. NRC Staff Submission of the Letter Regarding Reinstatement of the U.S. Army Corps of Engineers Permit (Apr. 21, 2017); *id.,* Attach. A.

[186] Ex. NRC-004, Staff Pre-Hearing Responses, at 25-26.

[187] *Id.* at 26-27; *see Entergy Nuclear Operations, Inc.* (Indian Point, Units 2 and 3), CLI-16-7, 83 NRC 293 (2016).

[188] Ex. NRC-004, Staff Pre-Hearing Responses, at 27.

[189] The Staff notified the Virginia State Corporation Commission, the NCUC, and the Federal Energy Regulatory Commission about the combined license application in April 2016. Ex. NRC-001, Staff Information Paper, at 33. The Staff published notices of the application in the *Federal Register* on April 27, 2016, May 4, 2016, May 11, 2016, and May 18, 2016 (at 81 Fed. Reg. 24,900; 81 Fed. Reg. 26,837; 81 Fed. Reg. 29,308; and 81 Fed. Reg. 31,263, respectively). *See* 10 C.F.R. § 50.43(a)(3).

10 C.F.R. § 50.12. And finally, we find that the proposed license conditions, as revised, are appropriately drawn and sufficient to provide reasonable assurance of adequate protection of public health and safety.[190]

We also conducted an independent review of the Staff's environmental analysis in the Final SEIS, taking into account the particular requirements of NEPA. NEPA section 102(2)(A) requires agencies to use "a systemic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts" in decision-making that may impact the environment.[191] We find that the environmental review team used the systemic, interdisciplinary approach that NEPA requires.[192]

NEPA Section 102(2)(C) requires us to assess the relationship between short-term uses and long-term productivity of the environment (including consideration of the benefits of operating the new units), to consider alternatives, and to describe the unavoidable adverse environmental impacts and the irreversible and irretrievable commitments of resources associated with the proposed action.[193] The discussion of alternatives is in Chapter 9 of the Final SEIS; the other items are discussed in Chapter 10.[194]

The environmental review team found the principal short-term benefit of the project to be the production of electrical energy.[195] The review team also noted that, because the environmental analysis focused on expansion of electrical generating capacity at the North Anna site, the benefits analysis focused on the benefits of building Unit 3 rather than on the more generic benefits of electricity supply.[196] And the review team found that construction and operation of North Anna Unit 3 would have tax revenue benefits.[197] The Virginia Economic Development Partnership Department (VEDP) projected the total tax benefit to be $24.9 million in tax revenues over the expected three-year construction period. And during the expected operation period, the VEDP estimated that

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[190] Ex. NRC-013, Staff Post-Hearing Response, Attach. B.

[191] 42 U.S.C. § 4332(2)(A).

[192] *See, e.g.,* Tr. at 53-59 (Ms. Bradford) (providing an overview of the Staff's environmental review methodology); Ex. NRC-010, Staff Overview Presentation, at 9-14. The environmental review team consisted of individuals with expertise in disciplines including ecology, meteorology, hydrology, radiation protection, socioeconomics, and cultural resources. Ex. NRC-009, Final SEIS, app. A. The team consisted of individuals from the NRC and the Pacific Northwest National Laboratory.

[193] 42 U.S.C. § 4332(2)(C)(ii)-(v).

[194] Ex. NRC-009, Final SEIS, chs. 9-10.

[195] *Id.* § 10.6.1. At the ESP stage, the Staff deferred to the COL stage the analysis of the short-term uses and long-term productivity of the environment. ESP Final EIS § 10.4.

[196] Ex. NRC-009, Final SEIS § 10.6.1.

[197] *Id.* § 10.6.1.2.

Unit 3 would generate $14.8 million in state taxes and $27.7 million in local taxes annually.[198]

NEPA section 102(2)(E) calls for agencies to study, develop, and describe appropriate alternatives.[199] The alternatives analysis is the "heart of the environmental impact statement."[200] Based on the discussion in the Final SEIS and the Staff's testimony, we find that the Staff identified an appropriate range of alternatives with respect to alternative power sources and alternative system designs and adequately described the environmental impacts of each alternative.[201] We find reasonable the Staff's conclusion that none of the alternatives considered is environmentally preferable to the proposed action.[202]

The ESP Final EIS describes the unavoidable adverse environmental impacts during construction and operation.[203] The Final SEIS lists the unavoidable adverse environmental impacts identified since the ESP environmental analysis.[204] The Final SEIS also confirms that impacts assessed at the ESP Final EIS have not changed based on new information.[205] The COL review team confirmed that unavoidable adverse impacts for construction would remain small for land use impacts, offsite transmission line rights-of-way, meteorological and air-quality impacts, hydrological and water use and water quality impacts, terrestrial ecological impacts, aquatic ecosystem impacts, threatened and endangered species, historic and cultural resources, environmental justice, non-radiological health impacts, and radiological health impacts.[206] The COL environmental review team confirmed that socioeconomic adverse impacts would still range from small to moderate.[207]

For operation, the COL environmental review team confirmed that the unavoidable adverse impacts would remain small for land use impacts, meteorological and air-quality impacts, hydrological impacts, aquatic impacts, impacts to threatened and endangered species, historic and cultural resources, environ-

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[198] *Id.*

[199] 42 U.S.C. § 4332(2)(E).

[200] 10 C.F.R. pt. 51, app. A, § 5.

[201] *See, e.g.,* Tr. at 60-61 (Ms. Bradford); Ex. NRC-009, Final SEIS, ch. 9; Ex. NRC-003, Draft Record of Decision, at 5-7.

[202] Ex. NRC-009, Final SEIS § 10.3. As required by 10 C.F.R. § 51.50(b)(1) and (c)(1), the Staff resolved its consideration of alternative sites at the ESP stage; it did not consider alternative sites at the COL stage. *Id.* § 9.0. At the COL stage, the Staff considered the no-action alternative, energy alternatives, and system design alternatives. *Id.* § 10.3.

[203] *See* ESP Final EIS, chs. 4 & 5.

[204] *See* Ex. NRC-009, Final SEIS, chs. 4 & 5.

[205] *See id.*

[206] Ex. NRC-009, Final SEIS §§ 4.1, 4.2, 4.3.1, 4.3.2, 4.3.3, 4.4.1, 4.4.2, 4.4.3, 4.6, 4.7, 4.8.4, 4.9.5; *see also* ESP Final EIS tbl. 4-1.

[207] Ex. NRC-009, Final SEIS § 4.5.5; *see also* ESP Final EIS tbl. 4-1.

mental justice, non-radiological health impacts, radiological impacts of normal operations, and postulated accidents.[208] The ESP environmental review team did not resolve water quality impacts (deferring these until the COL stage); the COL environmental review team assessed the issue and concluded that impacts to water quality from operation of North Anna Unit 3 would be small.[209] The review team confirmed that unavoidable adverse impacts would remain small to moderate for water use impacts.[210] And for socioeconomic impacts, the review team confirmed that adverse impacts would remain small to moderate.[211]

Finally, with regard to irreversible and irretrievable commitments of resources, the review team concluded that during construction of the plant, the material used, "while irretrievable, would be of small consequence with respect to the availability of such resources."[212] And with regard to operation of the proposed unit, the review team determined that uranium would be irretrievably committed, but the amount would be of small consequence in comparison to the availability of uranium ore and existing stockpiles of highly enriched uranium in the United States and Russia that could be processed into fuel.[213]

We must weigh these unavoidable adverse environmental impacts and resource commitments — the environmental "costs" of the project — against the project's benefits.[214] Considering the need for power in the region and the expected increase in productivity, jobs, and tax revenue as described in the hearing and in the Final SEIS, we find that the benefits of the project outweigh the costs described above. Moreover, we have considered each of the requirements of NEPA section 102(2)(C) and find that the record supports the Staff's conclusions on those requirements.

In sum, for each of the environmental topics discussed at the hearing and in this decision, we find that the Staff's review was reasonably supported in logic and fact and sufficient to support the Staff's conclusion. Based on our review, we also find that the remainder of the Final SEIS was reasonably supported and sufficient to support the Staff's conclusions.

Therefore, as a result of our review of the Final SEIS, and in accordance with

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[208] Ex. NRC-009, Final SEIS §§ 5.1, 5.2, 5.3.1, 5.4.2.5, 5.4.3.1, 5.4.3.2, 5.6, 5.7, 5.8.7, 5.9.3.3, 5.9.4, 5.9.5, 5.10.1, 5.10.2; *see also* ESP Final EIS § 5.12. The ESP environmental review team did not assess operational impact levels for chronic health impacts of electromagnetic fields. *See* ESP Final EIS § 5.8.5. As such, the COL environmental review team addressed this issue together with other nonradiological health impacts. Ex. NRC-009, Final SEIS § 5.8.7.

[209] Ex. NRC-009, Final SEIS § 5.3.3; *see also* ESP Final EIS § 5.3.3.

[210] Ex. NRC-009, Final SEIS § 5.3.2; *see also* ESP Final EIS § 5.3.2.

[211] Ex. NRC-009, Final SEIS § 5.5.5; *see also* ESP Final EIS § 5.12.

[212] Ex. NRC-009, Final SEIS § 10.5.

[213] *Id.*

[214] 10 C.F.R. § 51.107(a).

the Notice of Hearing for this uncontested proceeding, we find that the requirements of NEPA section 102(2)(A), (C), and (E), and the applicable regulations in 10 C.F.R. Part 51, have been satisfied with respect to the combined license application. We independently considered the final balance among conflicting factors contained in the record of this proceeding. We find, after weighing the environmental, economic, technical, and other benefits against environmental and other costs, and considering reasonable alternatives, that the combined license should be issued.

III. CONCLUSION

For the reasons discussed above, we find that the Staff's review of Dominion's combined license application was sufficient to support the findings in 10 C.F.R. §§ 52.97(a) and 51.107(a). We *authorize* the Director of the Office of New Rectors to issue the combined license for the construction and operation of North Anna Power Station, Unit 3. We *authorize* the Staff to issue the record of decision.

IT IS SO ORDERED.

For the Commission

Rochelle C. Bavol
Acting Secretary of the Commission

Dated at Rockville, Maryland,
this 31st day of May 2017.

Additional Views of Chairman Svinicki

I fully join in the conclusions that the review of the combined license application for North Anna Power Station, Unit 3, was sufficient to support the findings in 10 C.F.R. §§ 52.97(a) and 51.107(a) and that the Staff should therefore issue the record of decision and combined license, which includes a condition related to Severe Accident Management Guidelines (SAMG). I also agree with my colleagues' determination that the SAMG license condition is appropriate because it has a sufficient regulatory basis in the ESBWR design certification document, which is itself codified in our regulations.[1]

I write separately to emphasize that in reaching its conclusion, the Commission did not rely on the additional rationale for the SAMG license condition advanced by the Staff in its responses to our Post-Hearing Questions. In those responses, the Staff reasoned that while 10 C.F.R. § 52.47(a)(23) and (27) "do not include a specific requirement for implementation of SAMGs," the Staff "expects as a *logical outgrowth* of these provisions that some type of accident management guidance would be necessary."[2] I find the Staff's interpretation of 10 C.F.R. § 52.47(a)(23) and (27) to be inconsistent with recent Commission policy decisions. In Staff Requirements Memorandum SECY-15-0065, Proposed Rulemaking: Mitigation of Beyond-Design-Basis Events, we approved removing "the proposed requirements for Severe Accident Management Guidelines" from the proposed rule.[3] Those provisions would have applied to operating licensees and applicants as well as COL holders.[4] Contrary to this Commission decision, the Staff's interpretation of 10 C.F.R. § 52.47 would effectively reimpose the SAMG requirements into future COLs because it would require that the underlying DCDs, which all COL applicants to date have referenced, contain SAMGs. Moreover, at a previous COL hearing, I asked the Staff whether, in light of the age of the DCDs, they may contain requirements, such as SAMGs, that no longer reflect Commission policy.[5] In response, the Staff indicated that while it lacked a formal policy for reviewing whether portions of DCDs had become outdated, it did look at this issue in practice. However, contrary to these assurances by Staff, its interpretation of 10 C.F.R. § 52.47 appears to ignore the Commission's most recently articulated policy on SAMGs.

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[1] *See supra* Section II.B.1.d.

[2] Ex. NRC-013, Staff Post-Hearing Response, Attach. A, at 2 (emphasis added).

[3] Staff Requirements — SECY-15-0065 — Proposed Rulemaking: Mitigation of Beyond-Design-Basis Events (Aug. 27, 2015) (ML15239A767).

[4] "Proposed Rulemaking: Mitigation of Beyond-Design-Basis Events," Commission Paper SECY-15-0065 (Apr. 30, 2015), encl. 2, at 148-51 (ML15049A201 (package)).

[5] *Duke Energy Carolinas, LLC* (William States Lee III Nuclear Station, Units 1 and 2), Order (Setting Deadline for Proposed Transcript Corrections) (Oct. 11, 2016), app., at 66-69 (unpublished) (ML16285A467).

Additionally, to avoid any confusion, I also disagree with the Staff's suggestion that "logical outgrowths" are a valid basis for regulatory interpretation. In administrative law, courts generally consider "logical outgrowths" to determine whether an agency provided sufficient notice of a proposed rule.[6] A difference between the proposed and final rule "will not invalidate the notice so long as the final rule is a 'logical outgrowth' of the one proposed."[7] "An agency's final rule qualifies as the logical outgrowth of its [proposed rule] if interested parties should have anticipated that the change was possible."[8] If our regulations included "logical outgrowths," as normally defined in administrative law, then 10 C.F.R. § 52.47(a)(23) and (27) could be read to include a SAMG requirement, as well as a potential host of other requirements that could have been anticipated. Again, such an approach would be clearly contrary to Commission policy, as discussed above.

The Commission has never used "logical outgrowths" for interpreting the meaning of our regulations in the adjudicatory context. Comparing the instant case to a situation in which a reviewing court would normally use "logical outgrowths" illustrates why. First, in examining the adequacy of notice for a final rule, the reviewing court considers two formal agency positions that have been written and published in the *Federal Register*: the proposed and final rules. Here the agency has never written, let alone published, what it considers to be the "logical outgrowths" of 10 C.F.R. § 52.47, or to my knowledge any NRC regulation.[9] Consequently, concluding that our regulations have "logical outgrowths" that impose additional requirements would create a whole class of unwritten rules of which licensees would have no prior notice. That result would perversely undermine the purpose of the "logical outgrowth" test in its regular context, which is to ensure that the public has a reasonable opportunity to become aware of, and provide input on, agency rules.

Moreover, in the context of determining the sufficiency of notice, because the "logical outgrowth" occurs between the proposed and final rule, the agency will have established its position once the rule is effective. In contrast, applying "logical outgrowths" to interpret the meaning of already promulgated regulations invites the agency to supplement the content of its regulations years, in this case nearly ten, after going through the rulemaking process.[10] Again, the result

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[6] *Shell Oil Co. v. E.P.A.,* 950 F.2d 741, 747 (D.C. Cir. 1991).

[7] *Id.*

[8] *Agape Church, Inc. v. F.C.C.,* 738 F.3d 397, 411 (D.C. Cir. 2013) (quotations omitted).

[9] While the agency routinely publishes guidance interpreting its regulations, it is axiomatic at the NRC that guidance documents "do not impose requirements upon licensees but instead set forth *one* way in which a licensee or applicant can comply with our regulations." *Curators of the University of Missouri,* CLI-95-1, 41 NRC 71, 100 (1995).

[10] Part 52 Final Rule, 72 Fed. Reg. at 49,517, 49,528.

is contrary to the purpose of the "logical outgrowth" test, which requires the agency to seek contemporaneous input from the public when announcing a new requirement.

Finally, the term "logical outgrowth" naturally fits in the notice and comment context but would create an untenable basis for regulatory interpretation. As noted above, a final rule will be a "logical outgrowth" of a proposed rule if interested parties "should have anticipated that the change was possible."[11] In the context of notice and comment rulemaking, in which an agency considers a variety of approaches to a given problem, informed by additional proposals from members of the public, asking the public to provide comments on not just the proposed regulatory solution but others that could warrant consideration is reasonable and perhaps even necessary to bring the rulemaking process to closure.[12] In contrast, interpreting existing regulations to include "logical outgrowths" or all "possible changes" to the rule would leave our rules not worthy of the name.

As a result, using "logical outgrowths" to determine the meaning of a regulation would have the potential to undermine the very purpose of the "logical outgrowth" test by leading to regulatory requirements that are not publically written, contemporaneously developed with the notice and comment process, or fixed. Moreover, the results would be deeply inconsistent with our own principles of good regulation by leading to agency rules that are neither open, clear, nor reliable.[13] For these reasons, I believe that the Commission has wisely declined to adopt the Staff's suggestion that SAMGs may be "necessary" as a "logical outgrowth" of 10 C.F.R. § 52.47.

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[11] *Agape Church,* 738 F.3d at 411 (quotations omitted).

[12] *See Am. Fed'n of Labor and Cong. of Indus. Orgs. v. Donovan,* 757 F.2d 330, 338 (D.C. Cir. 1985) ("It is, of course, elementary that a final rule need not be identical to the original proposed rule. The whole rationale of notice and comment rests on the expectation that the final rules will be somewhat different — and improved — from the rules originally proposed by the agency." (quotations omitted)).

[13] *See* NRC, Principles of Good Regulation, https://www.nrc.gov/about-nrc/values.html#principles (last updated Dec. 19, 2016) (noting that regulation should be public and candid, regulations should be coherent, and regulations should not be "unjustifiably in a state of transition").

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

William M. Dean, Director

In the Matter of	**Docket Nos. 50-275** **50-323** **(License Nos. DPR-80,** **DPR-82)**
PACIFIC GAS & ELECTRIC COMPANY **(Diablo Canyon Nuclear Power Plant, Units 1 and 2)**	**May 12, 2017**

By letter dated July 14, 2016, as supplemented by an e-mail dated August 2, 2016, and a letter dated March 27, 2017, Mr. David Lochbaum (the Petitioner) of the Union of Concerned Scientists 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." The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC) take enforcement action against Pacific Gas and Electric Company (PG&E, the Licensee) related to the Diablo Canyon Power Plant, Units 1 and 2 (DCPP).

Mr. Lochbaum's letter, dated July 14, 2016, requested that the NRC "issue a Demand for Information pursuant to 10 CFR 2.204 to PG&E requiring the company to provide the NRC with a written explanation as to why its June 17, 2015 [alternative source term] license amendment request failed to include all the accurate information needed by the NRC Staff to complete its review and the measures it will implement so as to comply with 10 CFR 50.9 ['Completeness and Accuracy of Information'] in future submittals to the NRC." As a basis for the request, the Petitioner states that "the NRC's RAI [request for additional information] constitutes prima facie evidence that PG&E violated 10 CFR 50.9 by failing to provide complete information with its license amendment request dated June 17, 2015."

On August 2, 2016, the Petitioner spoke with the NRC's Petition Review Board through a public and recorded telephone conference and provided additional information concerning his request. By letter dated November 9, 2016, the NRC notified the Petitioner that the NRC had accepted the petition for review under the 10 C.F.R. § 2.206 process because the concerns meet the criteria provided in Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions." By e-mail dated November 21, 2016, the NRC Staff offered PG&E an opportunity to provide information related to the petition. The Staff did not receive any additional information from PG&E.

The NRC sent a copy of the proposed director's decision to the Petitioner and to PG&E for comment on March 15, 2017. The Staff did not receive any comments from PG&E. The Petitioner responded with comments by letter dated March 27, 2017. The comments from the Petitioner and the NRC Staff's responses to the comments are included as an Attachment to the final Director's Decision.

Subsequently, on May 12, 2017, the NRC issued a final Director's Decision. The NRC concluded that the Petitioner has provided no additional information which demonstrates that the use of means other than the appropriate regulatory tools in reviewing the DCPP alternative source term license amendment request are necessary to address technical deficiencies within the application. The NRC also concluded that the comments from the Petitioner in a letter dated March 27, 2017, did not change the conclusion of the proposed director's decision. Therefore, the NRC Staff concludes that the requested demand for information, per 10 C.F.R. § 2.204, is not warranted for the DCPP alternative source term license amendment request. Thus, the NRC denies the Petitioner's requested enforcement action against the Licensee.

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

I. INTRODUCTION

By letter dated July 14, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16196A294), as supplemented by an e-mail dated August 2, 2016, and a letter dated March 27, 2017 (ADAMS Accession Nos. ML16215A109 and ML17102A524, respectively), Mr. David Lochbaum (the Petitioner) of the Union of Concerned Scientists 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." The Petitioner requested that the U.S. Nuclear Regulatory Commission (NRC, the agency, or the Commission)

take enforcement action against Pacific Gas and Electric Company (PG&E, the Licensee) related to the Diablo Canyon Power Plant, Units 1 and 2 (DCPP).

Mr. Lochbaum's letter, dated July 14, 2016, requested that the NRC

> issue a Demand for Information pursuant to 10 CFR 2.204 to PG&E requiring the company to provide the NRC with a written explanation as to why its June 17, 2015, license amendment request [ADAMS Package Accession No. ML15176-A539] failed to include all the accurate information needed by the NRC staff to complete its review and the measures it will implement so as to comply with 10 CFR 50.9 ["Completeness and accuracy of information"] in future submittals to the NRC.

As a basis for the request, the Petitioner states, that "the NRC's RAI [request for additional information] constitutes *prima facie* evidence that PG&E violated 10 CFR 50.9 by failing to provide complete information with its license amendment request dated June 17, 2015." Also, the Petitioner states, that

> [t]he apparent violation of 10 CFR 50.9 required the NRC staff to expend additional resources to issue numerous requests for additional information and later to re-review the license amendment request along with the supplemental information. Had this licensee satisfied 10 CFR 50.9 with a complete and accurate license amendment request, these NRC staff resources would not have been squandered in such a non-productive way.

On August 2, 2016, the Petitioner spoke with the NRC's Petition Review Board through a public and recorded telephone conference and provided additional information concerning his request (ADAMS Accession No. ML16232-A570). By letter dated November 9, 2016 (ADAMS Accession No. ML16285-A220), the NRC notified the Petitioner that the agency had accepted the petition for review under the 10 C.F.R. § 2.206 process because the concerns meet the criteria provided in Management Directive 8.11, "Review Process for 10 CFR 2.206 Petitions" (ADAMS Accession No. ML041770328).

By e-mail dated November 21, 2016 (ADAMS Accession No. ML16326-A113), the NRC Staff offered PG&E an opportunity to provide information related to the petition. The Staff did not receive any additional information from PG&E.

The NRC sent a copy of the proposed director's decision to the Petitioner and to PG&E for comment on March 15, 2017 (ADAMS Accession Nos. ML17031-A264 and ML17031A259, respectively). The NRC Staff did not receive any comments from PG&E. The Petitioner responded with comments by letter dated March 27, 2017. The comments from the Petitioner and the NRC Staff's responses to the comments are included as an Attachment to this Director's Decision.

II. DISCUSSION

Under 10 C.F.R. § 2.206(b), the director of the NRC office with responsibility for the subject matter shall either institute the requested proceeding to modify, suspend, or revoke a license, or for any other appropriate action, or advise the person who made the request in writing that no proceeding will be instituted, in whole or in part, with respect to the request, and the reason for the decision. The Petitioner raised two main concerns in his petition dated July 14, 2016, associated with the need to require additional information from DCPP regarding an alternative source term license amendment request (LAR) and for the NRC to issue a demand for information pursuant to 10 C.F.R. § 2.204 for the submittal of incomplete or inaccurate information during an ongoing licensing review.

The NRC Staff has examined the information that the Petitioner presented and determined that the Petitioner did not provide any information that substantiates the need to issue a demand for information pursuant to 10 C.F.R. § 2.204 at this time. The NRC Staff determined that the agency's needs in this case are adequately served by the use of the existing license amendment review process (as outlined by NRC guidance implementing various regulatory requirements in 10 C.F.R. Part 2, "Agency Rules of Practice and Procedure," and 10 C.F.R. Part 50, "Domestic Licensing of Production and Utilization Facilities").

A. License Amendment Review Process

The purpose of the license amendment review process is for NRC Staff to review proposed modifications to the current licensing and design bases of nuclear power plants per 10 C.F.R. § 50.92, "Issuance of Amendment," to ensure the public health and safety are maintained. The NRC Staff has several tools within the license amendment review process to obtain the necessary information to make an appropriate and informed regulatory finding. Various regulatory requirements and NRC internal processes outline the mechanisms the NRC Staff can use to acquire the additional technical information necessary to support the NRC's determination on whether a proposed licensing action continues to support adequate protection of the public health, safety, and the environment.

When the Office of Nuclear Reactor Regulation (NRR) receives an application to amend a license (i.e., an LAR), the NRR staff performs an acceptance review to determine if the application is complete and acceptable for docketing within the authority of 10 C.F.R. § 2.101, "Filing of Application." The acceptance review process is detailed in NRR Office Instruction LIC-109, Revision

2, "Acceptance Review Procedures" (ADAMS Accession No. ML16144A521),[1] and addresses the process for determining whether a submittal has sufficient information for the NRC Staff to begin its technical review. The acceptance review is not a detailed technical review and is not intended to determine the acceptability of the requested change, only whether the application is sufficient for the NRR Staff to *begin* a detailed technical review.

Office Instruction LIC-109 describes several regulatory and technical criteria used for the acceptance review, including a determination that the Licensee submitted the information under oath and affirmation. This requirement extends from the Atomic Energy Act of 1954, as amended, and is also explicitly required for license amendments per 10 C.F.R. § 50.30(b), "Oath or Affirmation." The requirement provides the NRC Staff confidence that the information provided is reasonably complete.

Upon completion of the various acceptance review criteria by the NRC Staff, the office instruction describes in detail the three possible results of an acceptance review. During the acceptance review, if the NRC Staff finds deficiencies so significant that they impede completion of the review, the Staff will return the requested licensing action (RLA) to the licensee or applicant as unacceptable for review. If the NRC Staff finds the RLA insufficient to begin the review, the NRC Staff may request supplemental information from the licensee or applicant to address any deficiencies in the RLA in a reasonable time frame. Lastly, the NRC will accept an application for review if the NRC Staff concludes that the application and supplemental information (if necessary) reasonably appear to contain sufficient technical information, both in scope and depth, for the NRC Staff to begin the detailed technical review.

When the NRC accepts an LAR for review, the NRC Staff begins its detailed technical review with the goal of completing an independent assessment of the proposed action against applicable regulatory requirements and guidance with the objective of assuring the protection of public health and safety, following the guidance in Office Instruction LIC-101, Revision 5, "License Amendment Review Procedures" (ADAMS Accession No. ML16061A451).[2] The NRC recognizes that additional information may be needed for the NRC Staff to independently come to a conclusion about the technical adequacy of an LAR. As a result, section 2.102, "Administrative Review of Application," of 10 C.F.R. states that during review of an application, an applicant may be required to supply additional information. This section of the regulations provides NRC the

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[1] During the time of the acceptance review for the DCPP alternative source term LAR in 2015, the NRC Staff used LIC-109, Revision 1, dated July 20, 2009 (ADAMS Accession No. ML091810088).

[2] During the time of the beginning of the detailed technical review for the DCPP alternative source term LAR in 2015, the NRC Staff used LIC-101, Revision 4, dated May 25, 2012 (ADAMS Accession No. ML113200053).

authority to send RAIs to the licensee to obtain all relevant information needed to make a regulatory decision on an LAR that is fully informed, technically correct, and legally defensible. As described in LIC-101, the NRC Staff issues RAIs when the information is needed for the NRC Staff to make its regulatory decision, but the information is not included in the initial submittal, is not contained in any other docketed correspondence, or cannot reasonably be inferred from the information available to the Staff.

The NRC Staff can also leverage other appropriate communication means, such as public meetings and teleconferences, in order to enhance clarity and understanding both during the development of draft RAIs and after sending RAIs to the licensees. Use of such communication tools with the licensees facilitates the Staff's understanding of licensee submittals, can reduce the number of RAIs needed, and enhances the licensees' understanding of RAIs and their ability to respond effectively. In some cases, a regulatory audit is useful and appropriate to allow NRC Staff to gain a better understanding of the requested licensing action, to verify information, and to identify information that will require docketing to support the basis of the licensing decision. Performing a regulatory audit often allows the Staff to more efficiently conduct its review or gain insights on the licensees' programs or processes. However, in order for the NRC to use the information obtained during the audit to make a regulatory or technical decision, the information must be placed on the docket by the Staff or be formally submitted by the Licensee or applicant on the docket. Additional information on NRR's regulatory audit process can be found in Office Instruction LIC-111, "Regulatory Audits" (ADAMS Accession No. ML082900195).

If the NRC determines an LAR should not be approved, the NRC Staff has several options available within the license amendment review process. In accordance with 10 C.F.R. § 2.108, "Denial of Application for Failure to Supply Information," the NRC may deny an application if a licensee or applicant fails to respond to an RAI within 30 days from the date of request, or within such other specified time. Also, 10 C.F.R. § 2.103, "Action on Applications for By-product, Source, Special Nuclear Material, Facility and Operator Licenses," allows for NRC to deny an application if the deficiencies are such that the submittal and supplements fail to comply with the AEA or NRC regulations, as applicable. If the NRC determines that the LAR does not satisfy NRC safety regulations and warrants a denial, the NRC Staff will complete the necessary internal reviews, contact the licensee to discuss the determination to deny the application, and offer the licensee the opportunity to withdraw the application under 10 C.F.R. § 2.107, "Withdrawal of Application." NRC Staff will normally use the withdrawal and denial processes prior to pursuing enforcement action.

In summary, the NRC Staff has several tools within the license amendment review process to obtain the necessary information to make an appropriate and informed regulatory finding. If the NRC determines that the LAR cannot be

approved, the NRC Staff can offer the Licensee the opportunity to withdraw the application or pursue a denial. As a result, the use of enforcement-related action during the license amendment review process is not typically necessary nor is it common.

B. Regulatory Tools Used in the DCPP Alternative Source Term LAR

The Petitioner uses the example of the LAR submitted by PG&E on June 17, 2015, to revise the licensing bases to adopt the alternative source term. As discussed above, the NRC Staff has several tools within the license amendment review process to obtain the necessary information to make an appropriate and informed regulatory finding.

During the acceptance review of the DCPP alternative source term LAR, the NRC Staff used the Office Instruction LIC-109 process to obtain supplemental information necessary to allow the NRC Staff to begin its detailed technical review. In a letter dated August 13, 2015, the NRC informed the Licensee of the supplemental information needed in order to begin the technical review and the Licensee responded in a letter dated August 31, 2015, with the requested supplemental information (ADAMS Accession Nos. ML15219A016 and ML15243A363, respectively). The NRC Staff reviewed the supplemental information and by e-mail dated September 8, 2015, NRC Staff "determined that PG&E's responses provided adequate information to begin the technical review" and stated "given the lesser scope and depth of the acceptance review as compared to the detailed technical review, there may be instances in which issues that impact the NRC Staff's ability to complete the detailed technical review are identified despite completion of an adequate acceptance review" (ADAMS Accession No. ML15252A006).

The NRC Staff then used the RAI process to obtain additional clarity on the information provided by the Licensee in its application dated June 17, 2015. The Petitioner specifically references the NRC's RAIs regarding meteorological (Met) data and the atmospheric dispersion modeling analyses in Staff e-mails dated October 1, 2015, and February 17, 2016 (ADAMS Accession Nos. ML15278A049 and ML16048A232, respectively). The Licensee provided supplemental information in a timely manner in its letters dated November 2, 2015, and April 21, 2016 (ADAMS Accession Nos. ML15321A235 and ML16120-A026, respectively).

Due to the complex nature of the atmospheric dispersion modeling analyses in the DCPP LAR, including the Licensee's use of a proprietary dispersion model, the NRC Staff determined that a regulatory audit was necessary and prudent to examine and gain a better understanding of specific technical information input to those analyses, including supporting calculations. The NRC's regulatory audit plan dated July 12, 2016, and the subsequent audit report dated Octo-

ber 27, 2016, can be found in ADAMS under Accession Nos. ML16193A332 and ML16279A343, respectively. Following the regulatory audit on August 3-4, 2016, the NRC Staff submitted RAIs dated September 7, 2016 (ADAMS Accession No. ML16251A091), to obtain information discussed in the audit, on the docket, in order for NRC Staff to complete that portion of the review of the DCPP alternative source term LAR. In response to the RAIs, the Licensee provided supplemental information in letters dated October 6, 2016, and December 27, 2016 (ADAMS Accession Nos. ML16287A754 and ML17006A051, respectively).

Overall, the NRC Staff utilized the appropriate tools for requesting supplemental and additional information, consistent with well-established licensing processes, in order to facilitate an effective regulatory review of the LAR.

C. Discussion on 10 C.F.R. § 50.9

1. History of 10 C.F.R. § 50.9

The NRC promulgated 10 C.F.R. § 50.9 in 1987 in an attempt to codify Commission case law from the Virginia Electric Power Company (VEPCO) case, *Virginia Electric and Power Co.* (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480 (1976). In that case, the licensee failed to disclose in its LAR certain seismic information regarding the location of North Anna Power Station. At the time, such information was evaluated under the "material false statement" standard. The Commission concluded in the VEPCO case that there is no scienter requirement for material false statement (i.e., the licensee need not know that the statement is false at the time), that an omission can constitute material false statement, and that materiality is determined by whether information could influence NRC Staff in making a regulatory decision (52 Fed. Reg. 49,363 (Dec. 31, 1987)). The NRC continued administering the enforcement program under the VEPCO holding until its codification in the 1987 rulemaking.

The concept of a "material false statement" was broken into two separate regulations. The NRC's regulations at 10 C.F.R. § 50.9 cover information that is materially incomplete or inaccurate and 10 C.F.R. § 50.5, "Deliberate Misconduct," addresses deliberately providing information to the NRC or a licensee, etc., that the person submitting the information knows to be materially incomplete or inaccurate. The Statement of Considerations for the 10 C.F.R. § 50.9 rule demonstrates that the NRC Staff explicitly contemplated the implications of the rule on RAIs in the licensing process. Specifically, the NRC Staff stated that "the Commission intends to apply a rule of reason in assessing completeness of a communication. For example, in the context of reviewing an initial application or a renewal application for a license, it is not uncommon for an

NRC reviewer to seek additional information to clarify his or her understanding of the information already provided. This type of inquiry by the NRC does not necessarily mean that incomplete information which would violate this rule has been submitted" (52 Fed. Reg. at 49,366).

2. History of Enforcement in Licensing Matters

Consistent with the basis described in the Statement of Considerations of 10 C.F.R. § 50.9, the NRC has seldom issued violations for information submitted in the licensing process. In 1994, the NRC's Executive Director for Operations established a review team to assess the NRC enforcement program. The team's final report, NUREG-1525, "Assessment of the NRC Enforcement Program," dated April 1995 (ADAMS Accession No. ML092240713), discusses deterrence as an enforcement objective and specifically contemplates that enforcement occurs "after the fact."[3] The report goes on to say that "[a]ll enforcement is, by nature, *after the fact*; while licensing, inspection, and other NRC functions can help to anticipate and prevent violations and other safety problems from occurring, enforcement action is only taken when the noncompliance has already occurred (i.e., after the other motivations for compliance have, at least in this instance, been insufficient)."[4] In the case of licensing actions, the "other motivation" for compliance is the NRC's acceptance of the application and/or granting of the requested licensing action. In other words, the Staff's primary, and arguably, most effective recourse for poor-quality licensing submittals is to decline to accept the application and/or decline to grant the requested licensing action.

Section 182 of the Atomic Energy Act, from which NRC derives the authority to promulgate 10 C.F.R. § 50.9 states that "[t]he Commission may at any time after the filing of the original application, and before the expiration of the license, require further written statements in order to enable the Commission to determine whether the application should be granted or denied . . . ." This suggests that a reasonable recourse for inadequate responses to RAIs is denial of the requested licensing action rather than an enforcement sanction. Furthermore, as stated above, the Statement of Considerations for 10 C.F.R. § 50.9 (52 Fed. Reg. at 49,366) makes it clear that NRC Staff RAIs are not necessarily indicative of a violation of 10 C.F.R. § 50.9 as suggested by the Petitioner.

The Enforcement Policy provides the NRC Staff the authority to take an enforcement action for submittals of incomplete or inaccurate information. Whether a particular issue constitutes a violation of 10 C.F.R. § 50.9 is determined by

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[3] NUREG 1525 § II.A-4.

[4] *Id.*

the facts and circumstances in a particular case. While the NRC Staff seldom issues violations for information submitted in the initial phase of the licensing process, it can and has taken enforcement actions (including escalated enforcement) for cases where licensees provide inadequate information that the NRC used or considered in reaching a decision. Examples include situations when a licensee provided inaccurate or incomplete information: (1) related to a revision to technical specifications or a license transfer application; and (2) in response to RAIs in an egregious manner.[5]

3. Policy Issues

Whether or not the NRC issues violations for information that is incomplete or inaccurate in the context of licensing submittals is a matter of policy. While the NRC has an interest in receiving quality products for review, the agency also has an interest in maintaining efficiency in the regulatory process. If the NRC frequently cites violations of 10 C.F.R. § 50.9 for license applications and responses to RAIs, then it is likely that licensees will naturally tend to provide as little information as possible. This could thwart the candid and fulsome exchange of information and decrease the efficiency of the licensing process. The routine use of enforcement in this area may tend to create a "chilling effect" on licensees when providing information, which is contrary to the principles of good regulation.

As previously discussed, the primary means for dealing with unacceptable licensing submittals is denying the requested regulatory action or accepting a licensee's request to withdraw the requested regulatory action. To the extent that the NRC Staff believes the licensee's conduct is exceptionally egregious, enforcement is an available option. However, as noted earlier, in the Statement of Considerations, an NRC reviewer requesting additional information in the context of licensing is not usually indicative of a violation. The NRC Enforcement Manual contains guidance to the Staff on evaluating these issues (ADAMS Accession No. ML102630150). Specifically, the manual states that "generally, no enforcement action is taken for inaccurate or incomplete information submitted in the licensing process. . . ." However, "the NRC has the authority to do so on a case by case basis if a particular submission warrants such action." As explained above, given the availability of other regulatory actions that can be taken should inaccurate or incomplete information be identified, the NRC Staff does not believe enforcement action is warranted for the DCPP alternative source term LAR at this time.

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[5] EA-2004-189, EA-2012-030, EA-2013-058, and EA-2013-201 (ADAMS Accession Nos. ML-043090082, ML12213A182, ML13239A398, and ML14094A052, respectively).

D. RAIs and the NRC Budget

The Petitioner states in its e-mail dated August 2, 2016, that

> Our concern is heightened by the downsizing being undertaken via Project [Aim]. If the NRC Staff continues to inefficiently apply FTEs [full-time equivalents] to reviews and re-reviews and re-re-reviews of licensee submittals until they finally obtain complete and accurate information, those will be FTEs unavailable for more productive safety work.[6]

Project Aim is an NRC initiative for right-sizing the agency, along with a framework and series of ongoing initiatives to enhance the NRC's ability to plan and execute its mission in a more effective, efficient, and agile manner. Successful implementation of these strategies, along with the inculcation of the underlying tenets of Project Aim into agency culture, is expected to play a key role in helping the agency to accomplish the agency's safety and security mission more effectively and efficiently while operating with fewer resources. More on Project Aim can be found on NRC's external Web site at https://www.nrc.gov/about-nrc/plans-performance/project-aim-2020.html.

III. CONCLUSION

Given that the Petitioner has provided no additional information which demonstrates that the use of means other than the appropriate regulatory tools in reviewing the DCPP alternative source term LAR are necessary to address technical deficiencies within the application, the NRC Staff concludes that the requested demand for information, per 10 C.F.R. § 2.204, is not warranted for the DCPP alternative source term LAR. Therefore, the NRC denies the Petitioner's requested enforcement action against the Licensee.

As provided in 10 C.F.R. § 2.206(c), the NRC Staff will file a copy of this Director's Decision with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the Decision will constitute the final action of the Commission 25 days after the date of the Decision unless the

[6] E-mail dated August 2, 2016.

Commission, on its own motion, institutes a review of the Decision within that time.

For the Nuclear Regulatory Commission

William M. Dean, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this 12th day of May 2017

Attachment:
Responses to Petitioner Comments on Proposed Director's Decision

ATTACHMENT

COMMENTS RECEIVED FROM THE PETITIONER ON THE PROPOSED DIRECTOR'S DECISION DATED MARCH 15, 2017

By letter dated March 15, 2017, the NRC sent a copy of the proposed director's decision to Mr. David Lochbaum (the Petitioner) for comment. By e-mail dated March 27, 2017, the Petitioner responded with comments. The NRC has provided responses to the Petitioner's comments below.

Overall, there are several differences between the proposed and final director's decisions. To enhance clarity, the Petition Review Board added additional information in the section titled, "License Amendment Review Process" and relocated the information regarding the review of the specific DCPP alternative source term LAR to a new section titled, "Regulatory Tools Used in the DCPP Alternative Source Term LAR." For example, the Petition Review Board added a description of the options NRC can take if the NRC Staff has determined the LAR should not be approved, including the option to have the licensee withdraw the LAR or deny the LAR.

Comment 1

"A careful reading of LIC-109 and LIC-101 will not find a single reference to 10 CFR 50.9 (hereafter 50.9), will not find a single use of the word 'inaccurate,' and will find all uses of the word 'incomplete' limited to the NRC's authority under 10 CFR 2.101 to return a submittal deemed to be incomplete. . . . Likewise, both LIC-109 and LIC-101 refer to requests for additional information (RAIs) often, but never in the context of possibly indicating a 50.9 violation."

NRC Response to Comment 1

As the Petitioner stated, Office Instructions LIC-109 and LIC-101 do not reference 10 C.F.R. § 50.9. The NRC Staff has many tools within the license amendment review process to obtain additional information and clarity on the application, as discussed earlier. The NRC Staff also has several tools for handling an application that NRC Staff has determined to be unacceptable, including offering the Licensee an opportunity to withdraw and denying the application. With these tools built into the license amendment review process, the NRC does not need to include guidance in LIC-109 or LIC-101 to screen for 10 C.F.R. § 50.9 violations. Section 50.9 is handled under the enforcement process, which is separate from the license amendment review process.

Comment 2

"Page 6 of the proposed director's decision describes how LIC-111 . . . can more efficiently enable the NRC to access licensees' programs and processes. The inference I drew from this text is that these audits can gauge whether programs to ensure accurate and complete submittals are made to the NRC are adequate, or not. Oddly enough, LIC-111 mentions RAIs only in the context of obtaining additional information considered necessary for the audit report, not as potential indications of inadequate submittal assurance programs by licensees."

NRC Response to Comment 2

The purpose of performing a regulatory audit per LIC-111 is for the NRC Staff to gain a better understanding of the application to verify information and/or identify information that will require docketing to support the basis of the licensing or regulatory decision. As discussed earlier, audits are a particularly effective tool when the Staff is evaluating a technically complex LAR. If the NRC Staff determines during an audit that the application in question is not acceptable, the NRC will take steps to either have the application withdrawn or the NRC will deny it.

Comment 3

"I am not aware of classroom, computer-based, or on-the-job training specifically intended to help NRC staffers determine when a licensee has violated 50.9, or even to identify evidence of potential violations."

NRC Response to Comment 3

The NRC has various formal training programs catered to the roles and responsibilities of NRC employees and their roles in supporting the NRC's mission-essential functions, which include licensing, inspection, and enforcement. The technical staff qualification program focuses on the licensing process and the associated regulatory requirements, which include those requirements in the license amendment review process discussed above. The technical staff qualification also requires an understanding of 10 C.F.R. § 50.9 in relation to the acceptance review and request for additional information and the concept is specifically discussed in the qualification manual. An understanding of 10 C.F.R. § 50.9 is required in order to pass the qualification oral board for technical staff.

Comment 4

"Thus, there were over 6,268 requests for additional information (RAIs) issued by the NRC between 2009 and 2017 to date; the same period in which the NRC issued a whopping total of 11 significant enforcement actions for 50.9 violations — less than two-tenths of one percent of the number of RAIs. This is not to suggest or imply that every RAI constituted a violation of 50.9. Or that even half of them did. But it boggles the mind to suspect, yet alone believe, that less than 0.18 percent of the RAIs involved 50.9 violations."

NRC Response to Comment 4

Although the NRC Staff did not validate the information provided, those numbers reflect that the NRC Staff is properly applying the license amendment review process as intended.

Comment 5

"The rarity of NRC issuing a 50.9 violation coupled with the non-existent training for and procedural governance of potential 50.9 violations suggests that process alone does not account for the occasional violations. Instead, it seems more likely that violations are issued for other motivations, such as some NRC staffer being irked by a licensee and using the enforcement tool to retaliate."

NRC Response to Comment 5

As stated in response to Comment 4, the rarity of NRC issuing 10 C.F.R. § 50.9 violations during the review of license amendment requests demonstrates that the NRC Staff is appropriately using the license amendment review process. The NRC Staff will issue a 10 C.F.R. § 50.9 violation for cases that are especially egregious that cannot be handled appropriately under the license amendment review process. For example, if the NRC Staff relied on the inaccurate and/or incomplete information provided by a licensee to make a regulatory decision (e.g., issuing a license amendment) and the NRC would not have issued that license amendment if it had been aware of the inaccurate/incomplete information.

The process for issuing a 10 C.F.R. § 50.9 violation is a deliberative process that requires approval from several different managers and agreement from independent offices. The need for a 10 C.F.R. § 50.9 violation would be based on the merits of the case without personal biases. In response to the Petitioner's comment that some NRC employees might be motivated to pursue 10 C.F.R.

§ 50.9 violations for personal rather than factual reasons, the concern has been forwarded to the Office of the Inspector General for consideration.

Comment 6

"Returning to Management Directive 8.11 . . . page 26 of the handbook states that "The letters [issuing the proposed director's decision for comments], with the enclosure, will be made available to the public through the Agencywide Documents Access and Management System (ADAMS)" . . . . As of 9:00 am March 27, 2017, your March 15 letter to me is not publicly available in ADAMS."

NRC Response to Comment 6

The NRC acknowledges that the proposed director's decision was not made publicly available per Management Directive 3.4 due to an administrative oversight. The NRC Staff has taken corrective actions to ensure this administrative oversight does not happen in the future. Your comment has been forwarded to the Office of the Inspector General for consideration.

The following comments about the 10 C.F.R. § 2.206 process have been forwarded to the Office of the Inspector General for consideration.

Comment 7

"You offered me 14 days to review and comment on the proposed director's decision. This comment period seemed scant compared to the 30-day comment periods typically afforded licensees to respond to NRC's missives."

Comment 8

"For example, the final paragraph on page 20 of the handbook states "The first goal is to issue the proposed director's decision for comment within 120 days after issuing the acknowledgement letter." The acknowledgement letter was dated November 9, 2016, so the NRC issued the proposed director's decision 126 days later — I guess that's close enough for government work."

Comment 9

"Note that I submitted the petition on July 14, 2016. The NRC acknowledged it by letter dated November 9, 2016. So, the NRC took 116 days before even starting the 120-day clock in Management Directive 8.11."

NRC Response to Comments 7, 8, and 9

The Petition Review Board has determined that the comments provided by the Petitioner did not provide any relevant additional information and support for the petition that had not already been considered. Thus, the comments did not change the conclusion of the proposed director's decision. The final director's decision denies the Petitioner's request for enforcement action. The NRC appreciates the Petitioner's comments and thanks the Petitioner for raising the concerns in the interest of protecting the health and safety of the public.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of **Docket No. 50-333-EA**

ENTERGY NUCLEAR FITZPATRICK, LLC and ENTERGY NUCLEAR OPERATIONS, INC.
(James A. FitzPatrick Nuclear Power Plant) **June 9, 2017**

LICENSE AMENDMENTS

Order relaxation does not change license terms; rather, it indicates that the licensee has demonstrated sufficient cause, in the NRC Staff's view, to warrant the NRC not enforcing certain terms of the order against the licensee. An exercise of discretion not to enforce a particular license term in a particular circumstance does not alter the license.

ORDERS

Should the NRC grant an order relaxation request but determine later that the request either should not have been granted in the first place or should not be continued, the NRC would not need to engage in any formal process to revoke the relaxation because the pertinent order would still be effectively intact and enforceable against the licensee.

HEARING RIGHTS

If a license amendment is sought, the AEA and the NRC's implementing

regulations provide for public hearing opportunities in connection with the license amendment proceeding. Further, if the license amendment application is granted, any subsequent NRC order that has the effect of revoking the license amendment would itself trigger a hearing opportunity for the licensee. The order relaxation process, however, does not alter license terms or trigger hearing opportunities.

MEMORANDUM AND ORDER

Beyond Nuclear and the Alliance for a Green Economy New York (together, Petitioners) seek a hearing on recent requests filed by Entergy Nuclear FitzPatrick, LLC and Entergy Nuclear Operations, Inc. (together, Entergy) for extensions of time to comply with three post-Fukushima orders at the James A. FitzPatrick Nuclear Power Plant.[1] For the reasons discussed below, we deny Petitioners' hearing request.

I. BACKGROUND

The NRC issued the three orders at issue (EA-12-049, EA-12-051, and EA-13-109) in connection with the agency's lessons-learned initiative following the March 11, 2011, earthquake and tsunami and the resulting accident at the Fukushima Dai-ichi nuclear plant in Japan. EA-12-049 addresses mitigation strategies for certain beyond-design-basis events.[2] EA-12-051 addresses spent fuel pool instrumentation.[3] And EA-13-109, which superseded an earlier post-Fukushima order (EA-12-050), addresses reliable hardened containment vents.[4] Each order is styled as an "order modifying licenses," and each contains a provision stating that the pertinent NRC office director "may, in writing, relax or

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[1] [Corrected] Beyond Nuclear & the Alliance for a Green Economy Petition to Request a Hearing and Leave to Intervene on Entergy's Requests for an Extension to Comply with NRC Orders EA-12-049, EA-12-051 and EA-13-109 Requirements for the James A. FitzPatrick Nuclear Power Station (Nov. 10, 2016) (Hearing Request). On November 21, 2016, Petitioners filed a statement of errata together with a corrected version of their hearing request. We refer here to the corrected request.

[2] "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events (Effective Immediately)," EA-12-049 (Mar. 12, 2012) (ADAMS accession no. ML12054A735) (EA-12-049).

[3] "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation (Effective Immediately)," EA-12-051 (Mar. 12, 2012) (ML12056A044) (EA-12-051).

[4] "Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (Effective Immediately)," EA-13-109 (June 6, 2013) (ML13143A321) (EA-13-109).

rescind any of the above conditions upon demonstration by the Licensee . . . of good cause."[5]

Entergy has requested relaxation under the relevant provision of each order. These requests stem from a change in plans regarding whether to continue operating the FitzPatrick plant. In March 2016, Entergy submitted to the NRC a formal certification regarding its plans to close FitzPatrick permanently on January 27, 2017.[6] Citing this planned permanent closure of the plant, Entergy submitted an initial request in April 2016 seeking relaxation of EA-12-049 (mitigation strategies) and EA-12-051 (spent fuel pool instrumentation) requirements at FitzPatrick reasoning that the plant's permanent shutdown would be occurring only 27 days after the orders' implementation deadline.[7]

In August 2016, Entergy and Exelon Generation Company, LLC (Exelon) jointly filed an application with the NRC for transfer of the FitzPatrick operating license to Exelon in connection with a planned sale of the plant to Exelon, which would then continue operating the plant rather than shutting it down in January 2017.[8] On September 8, 2016, given this change in plans, Entergy submitted

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[5] EA-12-049 at 9; EA-12-051 at 10; EA-13-109 at 13. The orders also contain provisions setting deadlines for licensees to notify the NRC if they are unable to comply with any requirements of the orders, if compliance would be unnecessary in the licensees' specific circumstances, if implementing an order requirement would result in a violation of another NRC requirement, or if implementing an order requirement would have an adverse safety or security impact. In EA-12-049 and EA-12-051, these deadlines are twenty days after the orders were issued, while in EA-13-109 the deadlines are twenty days after issuance of "interim staff guidance" documents that provide more details on the order's implementation.

[6] Letter from Brian R. Sullivan, Entergy, to NRC Document Control Desk, "Certification of Permanent Cessation of Power Operations" (Mar. 16, 2016) (ML15322A273). Entergy also submitted a notice of this planned permanent closure of FitzPatrick to the NRC several months prior to submitting the formal certification. *See* Letter from John Ventosa, Entergy, to NRC Document Control Desk, "Notification of Permanent Cessation of Power Operations" (Nov. 18, 2015) (ML15322A273).

[7] Letter from Brian R. Sullivan, Entergy, to NRC Document Control Desk, "Request for Relaxation of March 12, 2012 Commission Orders Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events and Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-049 and EA-12-051)" (Apr. 14, 2016) (ML16105A379). Entergy later supplemented its request. Letter from Brian R. Sullivan, Entergy, to NRC Document Control Desk, "Supporting Information for Request for Relaxation of March 12, 2012 Commission Orders Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond Design Basis External Events and Reliable Spent Fuel Pool Instrumentation (Order Number EA-12-049 and EA-12-051)" (June 16, 2016) (ML16168A452).

[8] Letter from J. Bradley Fewell, Exelon, and Brian Sullivan, Entergy, to NRC Document Control Desk, "Application for Order Approving Transfer of Renewed Facility Operating License and Proposed Conforming License Amendment" (Aug. 18, 2016) (ML16235A081). The NRC approved the license transfer earlier this year. *See* In the Matter of Entergy Nuclear FitzPatrick, LLC, Entergy

(Continued)

the two relaxation requests for which Petitioners now seek a hearing.[9] The new requests sought extensions of time to comply not only with EA-12-049 and EA-12-051, but also with EA-13-109 on reliable hardened containment vents.[10] With respect to EA-12-049 and EA-12-051, Entergy requested a six-month extension of the compliance deadlines until June 30, 2017.[11] For EA-13-109, Entergy requested an extension until June 30, 2018.[12] Given the timing of developments regarding the license transfer and sale to Exelon, Entergy cited an inability to complete all required steps at FitzPatrick prior to the deadlines imposed by the orders.

On November 10, 2016, Petitioners filed the instant hearing request. Petitioners assert that Entergy's requested relaxation of the terms of the orders, which were styled as orders modifying licenses, would necessarily require the NRC to further amend the FitzPatrick operating license and provide an associated hearing opportunity.[13] Based on that premise, Petitioners have proffered two

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Nuclear Operations, Inc., and Exelon Generation Company, LLC; James A. FitzPatrick Nuclear Power Plant, Order Approving Direct Transfer of License and Approving Conforming Amendment, 82 Fed. Reg. 13,018 (Mar. 8, 2017).

[9] Letter from Brian R. Sullivan, Entergy, to NRC Document Control Desk, "Request for Extension to Comply with March 12, 2012 Commission Orders Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events and Reliable Spent Fuel Pool Instrumentation (Order Numbers EA-12-049 and EA-12-051)" (Sept. 8, 2016) (ML16252A477); Letter from Brian R. Sullivan, Entergy, to NRC Document Control Desk, "Request for Extension to Comply with NRC Order EA-13-109, 'Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions'" (Sept. 8, 2016) (ML16252A482); *see also* Entergy's Answer Opposing Request for Hearing Regarding FitzPatrick and EA-12-049, EA-12-051, and EA-13-109 (Dec. 5, 2016), at 10 (Entergy Answer) (characterizing these requests for extensions as relaxation requests filed pursuant to the relaxation provisions in the orders).

[10] Under Entergy's original plan to close FitzPatrick, the first deadline for complying with EA-13-109 requirements would not have occurred until after the plant had shut down permanently. Entergy EA-13-109 Relaxation Request at 2. EA-13-109's reliable hardened containment venting requirements address severe accident risks associated with reactor core damage, which would no longer be a concern at a permanently shut down and defueled reactor.

[11] Entergy indicated that if the proposed license transfer and sale to Exelon occurred, FitzPatrick's next refueling outage would occur in January 2017. In the absence of a relaxation, that would yield a deadline of December 31, 2016, for complying with EA-12-049 and EA-12-051 at FitzPatrick.

[12] Although EA-13-109 already provides June 30, 2018, as its default deadline, a plant's refueling outage schedules may produce an earlier deadline under the order's terms. EA-13-109 at 10-11. Based on FitzPatrick's refueling outage plans in the event its sale and license transfer to Exelon occurred, Entergy had a January 2017 deadline for compliance with EA-13-109 "Phase 1" requirements under EA-13-109's terms. Entergy EA-13-109 Relaxation Request at 2.

[13] Hearing Request at 9 ("The licensee must either achieve compliance as imposed by the Orders in the existing modified license or receive the licensee's request to amend those license conditions which includes properly placing Entergy's requests into the *Federal Register* with notice of the

(Continued)

contentions: one addressing the EA-12-049 and EA-12-051 relaxation request and the other addressing the EA-13-109 relaxation request. In both contentions, Petitioners assert that Entergy's relaxation requests should be denied for failing to follow NRC procedures governing license amendment applications.[14] The proposed contentions also challenge the timeliness of the relaxation requests. The contention addressing the EA-13-109 relaxation request also raises a safety-related challenge.[15]

Entergy and the NRC Staff oppose Petitioners' hearing request, arguing that Entergy's relaxation requests are not license amendments and therefore do not trigger hearing opportunities.[16] Entergy and the Staff also argue that Petitioners have not demonstrated standing for purposes of their requested hearing. They further argue that Petitioners' timeliness and safety-related claims would not support admitting the contentions for hearing even if a hearing opportunity did exist.[17]

On December 2, 2016, with the instant hearing request still pending, the Staff granted Entergy's request for relaxation of EA-12-049 and EA-12-051.[18] The Staff reasoned that a six-month delay in fully implementing the two orders was acceptable in light of other related capabilities already available at FitzPatrick for responding to severe accidents and the unlikelihood of events that could cause severe accidents.[19] In addition, on January 9, 2017, the Staff granted Entergy's request to relax EA-13-109, citing venting capabilities that would be in place at FitzPatrick in the interim, the low likelihood of events that would require use of venting capabilities, and the fact that the "relaxed" compliance date for

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opportunity for a hearing by any adversely impacted parties."); *see also* Combined Reply Beyond Nuclear & the Alliance for a Green Economy to Entergy and NRC Staff Answers in Opposition to Petitioners' Request for Hearing and Leave to Intervene in Entergy Corporation Request for Extension to Comply with NRC Orders EA-12-049, EA-12-051 and EA-13-109 (Dec. 12, 2016), at 9-17.

[14] Hearing Request at 18-25, 39-50.

[15] *Id.* at 26-38, 50-54. Petitioners' safety claim regarding relaxation of EA-13-109, briefly summarized, is that the containment venting capabilities upon which Entergy would rely in the interim, prior to coming into full compliance with the order, would not be sufficient to address the risks identified by the NRC's post-Fukushima analyses.

[16] Entergy Answer at 17-19; NRC Staff's Response to Beyond Nuclear & the Alliance for a Green Economy's Request for Hearing (Dec. 5, 2016), at 16-19 (Staff Answer).

[17] Entergy Answer at 22-26, 32-36; Staff Answer at 19-22, 23-29.

[18] Letter from William M. Dean, NRC, to Brian R. Sullivan, Entergy, "James A. FitzPatrick Nuclear Power Plant — Relaxation of the Schedule Requirements for Order EA-12-049, 'Issuance of Order to Modify Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events' and Order EA-12-051, 'Reliable Spent Fuel Pool Instrumentation' (CAC Nos. MF1077 and MF1076)" (Dec. 2, 2016) (ML16173A342) (FitzPatrick Relaxation Determination).

[19] *Id.*

FitzPatrick is still "consistent with the ultimate implementation date established by the order."[20]

II. DISCUSSION

We consider today solely the question of whether Entergy's requests to relax EA-12-049, EA-12-051, and EA-13-109 are, in actuality, requests to amend the FitzPatrick operating license that would trigger hearing opportunities under section 189a.(1)(A) of the Atomic Energy Act of 1954, as amended (AEA).[21] We conclude that this question is legally indistinguishable from the question we recently answered in response to a hearing request filed by Pilgrim Watch regarding the Pilgrim Nuclear Power Station.[22] In *Pilgrim,* Entergy asked the NRC, pursuant to the EA-13-109 relaxation provision, to extend an EA-13-109 compliance deadline until after Pilgrim's permanent closure date. Pilgrim Watch sought a hearing to challenge that request. As Petitioners have done here, Pilgrim Watch argued that the relaxation request amounted to a license amendment request that triggers a hearing opportunity under the AEA.[23]

Both Pilgrim Watch's and Petitioners' claims that hearing opportunities apply rest, in each case, on the same fundamental premise: that requesting "relaxation" of an order modifying licenses, under such an order's relaxation provision, equates to a license amendment request. We see no material differences between this case and *Pilgrim*: the relaxation provisions in the orders at issue all contain materially identical language; the relaxation requests involved all seek extensions of post-Fukushima order deadlines; and the legal landscape regarding NRC license amendments has not changed in the short time since we issued our *Pilgrim* decision.[24]

Accordingly, based on the same reasoning we provided in denying Pilgrim Watch's hearing request in *Pilgrim,*[25] we deny Petitioners' hearing request. As we explained in *Pilgrim,* order relaxation does not change license terms; rather,

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[20] Letter from William M. Dean, NRC, to Brian R. Sullivan, Entergy, "James A. FitzPatrick Nuclear Power Plant — Relaxation of the Schedule Requirements for Order EA-13-109: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents Capable of Operation Under Severe Accident Conditions (CAC No. MF4464)" (Jan. 9, 2017) (ML16336A754).

[21] 42 U.S.C. § 2239(a)(1)(A).

[22] *See Entergy Nuclear Operations, Inc.* (Pilgrim Nuclear Power Station), CLI-17-6, 85 NRC 96 (2017).

[23] *Id.* at 100.

[24] *Id.* at 102-03. Although this hearing request addresses relaxation of two post-Fukushima orders that were not at issue in *Pilgrim,* the parties have not identified a basis to treat the basic legal significance of order relaxation as differing from one post-Fukushima order to the next.

[25] *See id.* at 103-07.

it indicates that the licensee has demonstrated sufficient cause, in the NRC Staff's view, to warrant the NRC not enforcing certain terms of the order against the licensee.[26] An exercise of discretion not to enforce a particular license term in a particular circumstance does not alter the license. Should the NRC grant a relaxation request but determine later that the request either should not have been granted in the first place or should not be continued, the NRC would not need to engage in any formal process to revoke the relaxation because the pertinent order would still be effectively intact and enforceable at FitzPatrick.[27]

As we explained in *Pilgrim,* if a licensee seeks more formal and durable protections against subsequent revocation by the NRC, it remains free to apply for a license amendment instead of requesting order relaxation.[28] If a license amendment were sought, the AEA and our implementing regulations would provide for public hearing opportunities in connection with the license amendment proceeding.[29] Further, if the license amendment application were granted, any subsequent NRC order that would have the effect of revoking the license amendment would itself trigger a hearing opportunity for the licensee.[30] The relaxation process, however, does not alter license terms or trigger hearing opportunities. Accordingly, no hearing opportunity is available with respect to Entergy's relaxation requests.[31]

III. CONCLUSION

For the reasons provided above, we *deny* Petitioners' request for a license amendment hearing on Entergy's requests for relaxation of Commission orders EA-12-049, EA-12-051, and EA-13-109.[32]

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[26] *Id.* at 103.

[27] *Id.* at 103-04. We expect that any Staff decision to revoke a previous order relaxation decision would be supported by a reasoned basis. *See, e.g.,* FitzPatrick Relaxation Determination; *see also Pilgrim,* CLI-17-6, 84 NRC at 103-04 n.41.

[28] *Pilgrim,* CLI-17-6, 84 NRC at 103-04.

[29] *Id.* at 104 n.42.

[30] *Id.* at 103-04 n.41.

[31] Given our decision today that no hearing opportunity accompanies Entergy's relaxation requests, we need not reach the other disputed issues raised in the pleadings, such as Entergy's motion to strike certain portions of Petitioners' reply, which addresses matters that are not material to our decision. *See* Motion to Strike Portions of December 12, 2016 Reply Filed by Beyond Nuclear and the Alliance for a Green Economy (Dec. 20, 2016).

[32] In denying the hearing request, we take no position on the merits of Entergy's relaxation requests.

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 9th day of June 2017.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

COMMISSIONERS:

Kristine L. Svinicki, Chairman
Jeff Baran
Stephen G. Burns

In the Matter of **Docket No. 72-1050**

WASTE CONTROL SPECIALISTS LLC
(Consolidated Interim Storage Facility) **June 22, 2017**

MEMORANDUM AND ORDER

Earlier this year, the NRC provided notice in the *Federal Register* of the license application of Waste Control Specialists LLC (WCS) to construct and operate a consolidated interim waste storage facility.[1] The notice set a deadline of March 31, 2017, for members of the public to file requests for a hearing and petitions for leave to intervene on WCS's application. In late March, after receiving an unopposed joint motion from WCS and the Sierra Club, the Secretary extended that deadline to May 31, 2017.[2] The NRC has received no hearing requests to date.

On April 18, 2017, WCS requested that the NRC temporarily suspend all review activities associated with its application. The next day, WCS and the NRC Staff jointly requested that the hearing notice be withdrawn, explaining that a new *Federal Register* notice to provide a fresh opportunity for interested persons to request a hearing would be issued if review of the application re-

[1] Waste Control Specialists LLC's Consolidated Interim Spent Fuel Storage Facility Project, 82 Fed. Reg. 8773 (Jan. 30, 2017).

[2] Order (Mar. 29, 2017) (ADAMS accession no. ML17088A627) (unpublished); *see* Waste Control Specialists LLC's and Sierra Club's Joint Motion for Revised Schedule Related to Hearing Requests (Mar. 13, 2017) (ML17072A498).

sumes.[3] Beyond Nuclear, the Sierra Club, and the Sustainable Energy and Economic Development (SEED) Coalition filed a joint response, explaining that they did not object to WCS and the Staff's joint request.[4] The response also sought seven additional measures.

We grant WCS's and the Staff's request. We further direct that the Staff publish a *Federal Register* notice withdrawing the opportunity to request a hearing on this license application and direct the Staff to publish a new notice of opportunity to request a hearing in the *Federal Register* if WCS requests that the Staff resume its review of WCS's application.

As for the additional measures that Petitioners seek, we briefly describe and address each in turn. First, Petitioners request that we direct WCS to submit a new application containing all revisions that it has made since it filed its original application, rather than submitting a version that only includes "change-pages," when it requests that the Staff restart its review of the application. We decline this request to specify the format of revisions to the application. An applicant may revise its application several times over the course of the agency's review, and the Staff has broad discretion to request that revisions be provided in a way that facilitates the Staff's review and the public's understanding of the application. Petitioners will have the opportunity to challenge the adequacy of the application in full, regardless of its form.

Second, Petitioners request that we require WCS to notify Petitioners' counsel when WCS requests the restart of the Staff's review of the application. Because of Petitioners' demonstrated interest in this proceeding, we direct the Staff to notify Petitioners' counsel within three business days of any WCS request to have the NRC resume its review of WCS's application.[5]

Third, Petitioners request that the NRC not publish a new notice of opportunity to request a hearing on WCS's license application until after we have provided a separate opportunity for, and have ruled on, motions to dismiss the application for lack of jurisdiction. This request relates to Petitioners' argument that WCS's application is inconsistent with the licensing scheme set forth by

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[3] Joint Request to Withdraw the Federal Register Notice Providing an Opportunity to Submit Hearing Requests (Apr. 19, 2017) (ML17109A480) (attaching Letter to NRC Document Control Desk from Rod Baltzer, WCS (Apr. 18, 2017)).

[4] Response by Beyond Nuclear, SEED Coalition, and Sierra Club to Joint Request to Withdraw the Federal Register Notice Providing an Opportunity to Submit Hearing Requests (Apr. 28, 2017) (ML17118A268) (Response). The three groups refer to themselves collectively as "Petitioners," and we likewise use that reference.

[5] It is incumbent upon Petitioners' counsel to ensure that the Staff has up-to-date contact information.

the Nuclear Waste Policy Act (NWPA).[6] We decline to delay re-noticing the hearing opportunity to add an extra process that is not contemplated under our procedural regulations. This argument may be raised in an intervention petition after the hearing opportunity is re-noticed; 10 C.F.R. § 2.309(f)(1) specifically permits petitioners to present contentions that raise issues of law.

Fourth, Petitioners request that the new notice of opportunity for hearing provide 120 days for submitting hearing requests. Under 10 C.F.R. § 2.309(b), a petitioner typically has 60 days from the *Federal Register* notice to file hearing petitions. Although it is true that the Secretary extended the deadline for intervention petitions under the original hearing notice, Petitioners have not adequately explained why an additional 60 days will be necessary in the event the hearing opportunity is re-noticed. We decline to direct that a particular time period, beyond what is already established by our regulations, be established for a hearing opportunity that may be re-noticed at some point in the future.[7]

Fifth, Petitioners request that any new notice of opportunity for hearing provide a procedure for requesting access to Sensitive Unclassified Non-Safeguards Information (SUNSI) and Safeguards Information. In the original hearing notice, the access order was inadvertently omitted. We expect that — consistent with our established procedures[8] — the Staff will include in any reissued hearing notice the access procedures for obtaining SUNSI and Safeguards Information. Petitioners further request that the time to allow for requests for access should be doubled from the typical 10-day period to 20 days. We decline to extend the standard 10-day period at this time.[9]

Sixth, Petitioners request that we direct the Staff to publish a *Federal Register* notice clarifying that the NRC's environmental review of WCS's application

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[6] Response at 2 (citing Letter to Victor M. McCree, Executive Director for Operations, NRC, from Diane Curran *et al.* (Oct. 27, 2016) (ML16321A372) (requesting that the NRC dismiss the WCS application and stop the environmental review associated with the application because the WCS plan of operations does not comport with the NWPA); Letter to Diane Curran, Harmon Curran Spielberg & Eisenberg, L.L.P. from Marc L. Dapas, Director, Office of Nuclear Material Safety and Safeguards, NRC (Dec. 8, 2016) (ML16337A024) (noting that the issue raised was beyond the scope of the then-ongoing acceptance review)).

[7] This denial does not preclude Petitioners (or, indeed, any interested person) from seeking an extension of time once the Staff reissues the hearing notice. *See* 10 C.F.R. § 2.307(a) (allowing for extension of time limits by the Commission or presiding officer for good cause).

[8] *See* Delegated Authority to Order Use of Procedures for Access to Certain Sensitive Unclassified Information, 73 Fed. Reg. 10,978 (Feb. 29, 2008); *see also* Procedures to Allow Potential Intervenors to Gain Access to Relevant Records That Contain Sensitive Unclassified Non-Safeguards Information or Safeguards Information (Feb. 29, 2008) (ML080380626).

[9] This denial does not preclude Petitioners (or, indeed, any interested person) from seeking an extension of time for obtaining access to SUNSI or Safeguards Information once the Staff reissues the hearing notice.

is suspended and that — contrary to the previously published scoping notices[10] — the NRC will not accept public scoping comments on the proposed environmental impact statement for the WCS facility pending further notice. We direct that when the Staff publishes its notice withdrawing the opportunity to request a hearing on this license application, the Staff also clarify that its environmental review and scoping work is likewise suspended.

Seventh, and relatedly, Petitioners request that we direct the Staff to reopen the time period for submitting scoping comments for the environmental impact statement when the Staff resumes its review of WCS's application. Petitioners further request that any reopening should be noticed in the *Federal Register,* and they seek 120 days after publication to submit any scoping comments. We agree that if WCS requests that the review of its application resume, the Staff should reopen the scoping comment period, and should provide notice of that reopening in the *Federal Register.* We decline, however, to direct the Staff to provide a 120-day comment period at this time.[11]

IT IS SO ORDERED.

For the Commission

Annette L. Vietti-Cook
Secretary of the Commission

Dated at Rockville, Maryland,
this 22d day of June 2017.

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[10] The scoping period began November 14, 2016. *See* Waste Control Specialists LLC's Consolidated Interim Spent Fuel Storage Facility Project, 81 Fed. Reg. 79,531 (Nov. 14, 2016). The scoping period closed on March 13, 2017, but the Staff reopened the scoping period until April 28, 2017. *See* Waste Control Specialists LLC's Consolidated Interim Spent Fuel Storage Facility Project, 82 Fed. Reg. 14,039 (Mar. 16, 2017).

[11] Again, this does not bar any potential extension requests that Petitioners may seek to obtain from the Staff after the comment period is re-opened.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

William J. Froehlich, Chairman
Dr. Gary S. Arnold
Dr. Sue H. Abreu

In the Matter of **Docket No. 40-9083**
(ASLBP No. 17-952-01-MLA-BD01)

U.S. ARMY INSTALLATION COMMAND
(Source Materials License No. SUC-1593, Amendment 2, Davy Crockett Depleted Uranium at Various United States Army Installations)

June 13, 2017

In this Memorandum and Order, the Atomic Safety and Licensing Board concluded that Petitioners failed to demonstrate standing to intervene or proffer an admissible contention regarding the second license amendment request submitted by the U.S. Army Installation Command regarding a 10 C.F.R. Part 40 source materials license for possession of depleted uranium at various Army installations, including the Pohakuloa Training Area.

RULES OF PRACTICE: GENERAL REQUIREMENTS TO OBTAIN A HEARING

To obtain a hearing, a petitioner must establish standing and propose at least one admissible contention.

RULES OF PRACTICE: STANDING TO INTERVENE

The NRC shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding.

RULES OF PRACTICE: GENERAL REQUIREMENTS TO OBTAIN A HEARING

The NRC will grant a hearing request if the petitioner meets the standing requirements of 10 C.F.R. § 2.309(d) and submits at least one admissible contention according to 10 C.F.R. § 2.309(f).

RULES OF PRACTICE: STANDING

Under section 2.309(d), the petitioner's hearing request must contain: "(i) The name, address and telephone number of the requestor or petitioner; (ii) The nature of the requestor's/petitioner's right under the [Atomic Energy Act or National Environmental Policy 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; and (iv) The possible effect of any decision or order that may be issued in the proceeding on the requestor's/petitioner's interest."

RULES OF PRACTICE: STANDING (TRADITIONAL)

When assessing whether an individual has set forth a sufficient interest in the proceeding to intervene, the Commission has applied contemporaneous judicial concepts of standing — requiring injury, causation, and redressability.

RULES OF PRACTICE: STANDING (TRADITIONAL)

To establish traditional standing in a materials license proceeding, a petitioner must allege (1) an actual or threatened, concrete and particularized injury that (2) is fairly traceable to the challenged action, (3) falls among the general interests protected by the Atomic Energy Act (or other applicable statute, such as the National Environmental Policy Act), and (4) is likely to be redressed by a favorable decision.

RULES OF PRACTICE: STANDING TO INTERVENE (INJURY IN FACT)

The alleged injury must not be conjectural or hypothetical.

RULES OF PRACTICE: STANDING

In the case of a license amendment, the petitioner must demonstrate that the amendment will cause a distinct new harm or threat apart from the activities already licensed.

RULES OF PRACTICE: STANDING

The petitioner must show that its actual or threatened injuries can be cured by some action of the tribunal.

RULES OF PRACTICE: STANDING (PROXIMITY PRESUMPTION)

In certain circumstances, the Commission has adopted a proximity presumption that allows a petitioner living, having frequent contacts, or having a significant property interest within 50 miles of a nuclear power reactor to establish standing without the need to make an individualized showing of injury, causation, and redressability.

RULES OF PRACTICE: STANDING (PROXIMITY PRESUMPTION)

The automatic proximity presumption does not apply in materials licensing proceedings. Instead, whether and at what distance a petitioner can be presumed to be affected must be judged on a case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source. Under this "proximity-plus" approach, a petitioner must demonstrate that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences.

RULES OF PRACTICE: STANDING BURDEN

The petitioner bears the burden to provide facts sufficient to establish standing. It is generally sufficient if the petitioner provides plausible factual allegations that satisfy each element of standing.

RULES OF PRACTICE: STANDING BURDEN

A licensing board is to construe the petition in favor of the petitioner for purposes of standing.

RULES OF PRACTICE: *PRO SE* PETITIONER

Pro se petitioners are held to less rigid pleading standards, so that parties with a clear — but imperfectly stated — interest in the proceeding are not excluded.

RULES OF PRACTICE: STANDING (PROXIMITY PRESUMPTION)

Petitioners fail to demonstrate that depleted uranium constitutes a significant source of radioactivity. The licensed concentrations of depleted uranium do not constitute a significant source of radioactivity, because there remains no indication that the depleted uranium concentrations at Pohakuloa even exceed the decommissioning screening values for uranium.

RULES OF PRACTICE: STANDING (PROXIMITY PRESUMPTION)

Petitioners fail to demonstrate that onsite radioactivity produces an obvious potential for offsite consequences. The Board may not consider the potential for offsite air and groundwater pathways as a basis for standing in this proceeding because the possibility that these will serve as pathways was resolved by the first license amendment.

RULES OF PRACTICE: STANDING (TRADITIONAL)

Petitioners fail to satisfy traditional standing criteria, because, at a minimum, Petitioners fail to articulate a plausible chain of causation or, in this context, a plausible depleted uranium exposure pathway.

RULES OF PRACTICE: STANDING

Petitioners lack standing because they have failed to show how the site-specific monitoring plan creates a distinct new harm or threat apart from the activities already licensed.

RULES OF PRACTICE: CONTENTIONS (ADMISSIBILITY)

An admissible contention must (1) provide a specific statement of the legal or factual issue sought to be raised; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised is within the scope of the proceeding; (4) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) provide a concise statement of the alleged facts or expert opinions that support the petitioner's position and upon which the petitioner intends to rely at the

hearing; and (6) provide sufficient information to show that a genuine dispute exists in regard to a material issue of law or fact. Failure to satisfy any of these requirements is sufficient to render a contention inadmissible.

RULES OF PRACTICE: CONTENTIONS (SCOPE)

Contentions must be limited to issues that are relevant to the pending application. Contentions are not admissible unless they are within the scope of the proceeding for which the licensing board has been delegated jurisdiction.

RULES OF PRACTICE: CONTENTIONS (SCOPE)

In a license amendment proceeding, a petitioner's contentions must focus on the subject matter identified in the hearing notice, the amendment application, and the Staff's environmental responsibilities relating to the application. The contentions proposed by Petitioners are outside the narrow scope of this proceeding or not material to the findings the Staff must make regarding the second license amendment, because they challenge matters already resolved in a prior licensing action.

RULES OF PRACTICE: CONTENTIONS (SCOPE)

Petitioners' claims that the Army is illegally occupying or failing to satisfy lease obligations associated with Pohakuloa are property claims and are outside the scope of the second license amendment. Similarly, Petitioners' assertions that the Army must comply with requests contained in a local government resolution are outside the scope of this proceeding.

RULES OF PRACTICE: CONTENTIONS (SCOPE)

Petitioners' contentions that "[c]omprehensive, independent, testing and monitoring" for radiation contamination has not been conducted and should be completed are outside of the limited scope of the second license amendment proceeding. Because air monitoring requirements were resolved in the previous proceeding, Petitioners' specific claims that air monitoring at Waiki'i Ranch should be required are also outside the scope of this proceeding.

RULES OF PRACTICE: CONTENTIONS (INCORPORATION OF CONTENTIONS)

Petitioners that fail to submit at least one admissible contention of their own

are prohibited by Commission precedent from seeking to incorporate by reference the proposed contentions of others.

MEMORANDUM AND ORDER
(Denying Requests for Hearing and Dismissing Petitions to Intervene)

Before the Board are four separate hearing requests and petitions to intervene filed by *pro se* petitioners — James V. Albertini, Cory Harden, Hāwane Priscilla Marie Kalikokaumakaikealaulaomana Rios, and Ruth-Rebeccalynne Tyana Lokelani Aloua (collectively Petitioners).[1] Petitioners seek a hearing on the second license amendment request submitted by the U.S. Army Installation Command (the Army) regarding a 10 C.F.R. Part 40 source materials license for possession of depleted uranium (DU)[2] at various Army installations, including the Pohakuloa Training Area (Pohakuloa). The second license amendment request addresses licensing conditions requiring the submission of site-specific Environmental Radiation Monitoring Plans (ERMPs) and site-specific dose calculations that are consistent with the programmatic ERMP and dose modeling methodology approved by the first licensing amendment to the source materials license.[3]

Because all Petitioners lack standing we deny each request for a hearing

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[1] James V. Albertini Request for Hearing and Petition for Leave to Intervene (Apr. 6, 2017) [hereinafter Albertini Petition]; Cory Harden Request for Hearing and Petition for Leave to Intervene (Apr. 7, 2017) [hereinafter Harden Petition]; Hāwane Priscilla Marie Kalikokaumakaikealaulaomana Rios Request for Hearing and Petition for Leave to Intervene (Apr. 10, 2017) [hereinafter Rios Petition]; Ruth-Rebeccalynne Tyana Lokelani Aloua Request for Hearing and Petition for Leave to Intervene (Apr. 10, 2017) [hereinafter Aloua Petition]. This Board was established to preside over this proceeding on April 13, 2017. U.S. Army Installation Command; Establishment of Atomic Safety and Licensing Board, 82 Fed. Reg. 18,486 (Apr. 19, 2017).

[2] Uranium is a naturally occurring radioactive element. *See* U.S. Nuclear Reg. Comm'n (NRC), *Glossary: Uranium,* https://www.nrc.gov/reading-rm/basic-ref/glossary/uranium.html (last visited June 7, 2017). Uranium in natural ores contains two principal isotopes: uranium-238 (99.28% by weight) and uranium-235 (0.72% by weight). *See* Int'l Atomic Energy Agency, *Depleted Uranium,* https://www.iaea.org/topics/spent-fuel-management/depleted-uranium (last visited June 7, 2017) [hereinafter IAEA Depleted Uranium]. By regulation, DU is source material uranium in which uranium-235 is less than 0.711% by weight of the total uranium present. *See* 10 C.F.R. § 40.4. DU typically contains 99.8% by weight U-238 and 0.2% by weight U-235. *See* IAEA Depleted Uranium. In general, the levels of radioactive emissions of natural uranium isotopes are inversely related to the atomic weight of a specific isotope. *Id.* Therefore, uranium-238 produces less alpha, beta, and gamma radiation than uranium-235, and DU, with a relatively higher percentage of U-238, is much less radioactive than natural uranium. *Id.*

[3] Source Materials License No. SUC-1593, Amendment 2, Davy Crockett Depleted Uranium at Various United States Army Installations, 82 Fed. Reg. 10,031, 10,031 (Feb. 9, 2017).

and dismiss each petition. Further, no contention put forward by any Petitioner satisfies the requirements for an admissible contention.

I. PROCEDURAL HISTORY

The Army's application for a source materials license for DU at Pohakuloa was previously litigated before a licensing board of the Atomic Safety and Licensing Board Panel and the Commission in 2010.[4] The original licensing proceeding's record indicates that DU originated from the use of M101 "spotting rounds" in conjunction with the Davy Crockett nuclear weapon system at Schofield Barracks (Schofield) and Pohakuloa during the 1960s.[5] The heavy weight of DU enabled the spotting rounds to simulate — for targeting purposes only — the trajectory of non-nuclear practice projectiles.[6] The DU fragments are located in highly controlled, unoccupied impact areas, which, due to the presence of unexploded munitions, are accessed only by specially trained personnel.[7]

DU fragments from the spotting rounds "remained on the firing ranges, undetected, until the Army discovered the fragments at Schofield and Pohakuloa in 2005 and 2008, respectively."[8] Army records were insufficient to determine the exact number of spotting rounds used at these locations.[9]

In 2008, the Army submitted an application "to possess and manage DU at Schofield and Pohakuloa, in order to perform radiological surveys to fully characterize the nature and extent of contamination, and, as appropriate, to obtain information necessary to support development of decommissioning plans."[10] The Army's application conservatively presumed, for purposes of calculating potential radiation exposure, that 560 kilograms (1,232 pounds) of DU were distributed in the surface soils of each firing range at Schofield and Pohakuloa.[11]

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[4] *U.S. Army Installation Command* (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), LBP-10-4, 71 NRC 216, *aff'd,* CLI-10-20, 72 NRC 185 (2010).

[5] *U.S. Army,* LBP-10-4, 71 NRC at 220; *U.S. Army,* CLI-10-20, 72 NRC at 187.

[6] *U.S. Army,* LBP-10-4, 71 NRC at 220; *U.S. Army,* CLI-10-20, 72 NRC at 187. If processed, DU has some commercial applications, including use as counterweights, armor shielding, and military penetrators. NRC, *Frequently Asked Questions About Depleted Uranium Deconversion Facilities,* https://www.nrc.gov/materials/fuel-cycle-fac/ur-deconversion/faq-depleted-ur-decon.html (last visited June 7, 2017) [hereinafter NRC Frequently Asked Questions About Depleted Uranium].

[7] *U.S. Army,* LBP-10-4, 71 NRC at 222.

[8] *U.S. Army,* CLI-10-20, 72 NRC at 187.

[9] *Id.*

[10] *Id.*

[11] *U.S. Army,* LBP-10-4, 71 NRC at 222. In contrast, the Army's radiation modeling associated *(Continued)*

Four *pro se* petitioners, including Petitioners Harden and Albertini, who are also before this Board, requested a hearing on the Army's source materials license application.[12] Three of those petitioners, including Petitioners Harden and Albertini, were similarly situated in that they all lived at least 19 miles away from Pohakuloa.[13] The fourth petitioner lived within 2 miles of Schofield.[14] The original licensing board rejected all four hearing requests because each petitioner failed to establish standing under traditional or proximity-based standing principles.[15] Regarding the one petitioner who presented the strongest standing claim — due to closer proximity[16] — the original licensing board additionally concluded that the petitioner did not proffer an admissible contention.[17]

The original licensing board concluded that none of the petitioners had established proximity-based standing because no petitioner had shown that the DU spotting rounds at Pohakuloa presented a significant source of radiation with an obvious potential for offsite consequences.[18] Regarding source significance, the original licensing board noted that the Army's conservative DU concentration assumptions resulted in a concentration of radioactivity significantly lower than the decommissioning screening values for uranium.[19] Regarding offsite consequences, the original licensing board concluded that there was no apparent means for the DU to spread beyond its current location,[20] including consideration of alleged pathways associated with groundwater, wind, munitions use, controlled grass fires, and offsite soil disposal.[21] Similarly, none of the petitioners established traditional standing because each failed to demonstrate a possible mechanism by which offsite DU migration could cause injury traceable to the

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with the ERMPs that accompanied its initial license application assumed that 135 kilograms (298 pounds) of DU were deposited at both Schofield and Pohakuloa. *Id.* at 222 n.7.

[12] *Id.* at 219.

[13] *Id.* at 227.

[14] *Id.*

[15] *Id.* at 230-40.

[16] *Id.* at 227.

[17] *Id.* at 241-43.

[18] *See U.S. Army,* CLI-10-20, 72 NRC at 190 (citing *U.S. Army,* LBP-10-4, 71 NRC at 231-34, 236-37).

[19] *Id.* at 190-91 (citing *U.S. Army,* LBP-10-4, 71 NRC at 231). Decommissioning screening values are "surface soil concentrations of individual radionuclides that would be deemed in compliance with the 25 mrem/y (0.25 mSv/y) unrestricted release dose limit in 10 CFR 20.1402." Office of Nuclear Material Safety and Safeguards, Consolidated NMSS Decommissioning Guidance, Final Report, NUREG-1757, at B-3 tbl.B.2 (Vol. 1 Sept. 2002) (ADAMS Accession No. ML022620303).

[20] *U.S. Army,* CLI-10-20, 72 NRC at 191 (citing *U.S. Army,* LBP-10-4, 71 NRC at 232-34).

[21] *See U.S. Army,* LBP-10-4, 71 NRC at 232-34, 236, 239-40.

licensing action.[22] One petitioner appealed the original licensing board's decision. The Commission affirmed the licensing board's decision in all respects.[23]

On October 23, 2013, the NRC Staff issued Source Materials License No. SUC-1593 to the Army for the DU spotting rounds at Schofield and Pohakuloa.[24] The source materials license authorized the possession of 125 kilograms (276 pounds) of DU and approved radiological environmental monitoring, but generally prohibited DU removal.[25]

Prior to license issuance, the NRC Staff concluded that the Army's license application generally complied with the standards and requirements of the Atomic Energy Act and NRC regulations.[26] The Staff found, however, that license conditions were required to ensure that the Army conducted its radiation safety program in compliance with applicable regulations.[27] Therefore, the source materials license included license conditions requiring the Army to perform specific air and plant monitoring to confirm that additional monitoring was not warranted to protect facilities personnel and the public.[28]

In June 2015, the Army submitted an application to amend its source materials license.[29] Under this first license amendment application, DU spotting rounds at sixteen installations, including Schofield and Pohakuloa, would be licensed using a programmatic approach, including a programmatic Radiation Safety Plan, Physical Security Plan, and ERMP.[30] The programmatic ERMP contained general commitments regarding environmental monitoring of potentially significant DU pathways out of the radiation control areas that enclose the DU.[31] The Army also proposed developing site-specific ERMPs for submission to the NRC,[32] to include describing general sampling requirements for individual

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[22] *See id.* at 234, 237-38, 240.

[23] *U.S. Army,* CLI-10-20, 72 NRC at 187.

[24] Materials License SUC-1593 (Oct. 23, 2013) at 1 (ADAMS Accession No. ML13259A062) [hereinafter Source Materials License].

[25] *See id.*

[26] Safety Evaluation Report for the U.S. Army's Possession License for Depleted Uranium from the M101 Spotting Round (Oct. 2013) at 5 (ADAMS Accession No. ML13259A081) [hereinafter License SER].

[27] *Id.*

[28] Source Materials License at 3; License SER at 29-31.

[29] U.S. Dept. of the Army — Transmittal of Application for Amendment to License No. SUC-1593 (June 10, 2015) (ADAMS Accession No. ML15161A454).

[30] Safety Evaluation Report for the U.S. Army's Possession License for Depleted Uranium from Davy Crockett M101 Spotting Rounds — Amendment to Add Remaining Sites (Mar. 2016) at 1 (ADAMS Accession No. ML16039A230) [hereinafter LA1 SER].

[31] *Id.* at 42.

[32] *Id.*

DU sites.[33] The programmatic ERMP concluded that no air sampling would be required at any installation.[34] Moreover, groundwater monitoring would only be required if there were existing wells potentially influenced by DU in a radiation control area.[35]

The NRC Staff approved the Army's programmatic approach, but imposed a licensing condition requiring the submission to the NRC of site-specific ERMPs.[36] The Staff agreed with the Army's analysis that the air exposure pathway, including from high-explosive ordinance aerosolization of DU, was highly unlikely to result in a dose greater than 1.0 millirem (10 microSieverts) per year outside any radiation control area.[37] In comparison, natural background radiation in the United States averages about 310 millirem (3100 microSieverts) per year.[38] The Staff also concluded that there was a low likelihood of groundwater contamination, because DU metal or oxide is insoluble.[39] As a result, the Staff concluded that air monitoring would not be required and groundwater would only be analyzed for DU when an existing well in the area of the DU was sampled for any purpose.[40]

The Staff also evaluated the Army's dose assessment and concluded that it was unnecessary to require environmental monitoring of soil, sediment, surface water, and groundwater on a regular basis.[41] The Staff accepted the Army's calculation of the maximum possible radiation exposure, but imposed a licensing condition to submit site-specific dose modeling parameters, including a showing that the calculated site-specific all-pathway dose for each radiation control area did not exceed an annual total effective dose equivalent of 1.0 millirem (10 microSieverts).[42] As a result, the Staff issued the amended license, which was not challenged by any petitioner.[43]

In September 2016, the Army submitted a second license amendment application containing site-specific ERMPs for each DU licensed facility, including

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[33] *See* U.S. Dept. of the Army — Application for Amendment to License No. SUC-1593, Including Attachments 4 through 9 (June 1, 2015), Attach. 4, at 3 (ADAMS Accession No. ML15161A459).

[34] LA1 SER at 45-46.

[35] *See id.* at 47.

[36] *See id.* at 51; Amendment No. 1 Materials License SUC-1593 (Mar. 21, 2016) at 4 (ADAMS Accession No. ML16039A234) [hereinafter Amended Source Materials License].

[37] LA1 SER at 49.

[38] NRC, *Backgrounder on Biological Effects of Radiation,* https://www.nrc.gov/reading-rm/doc-collections/fact-sheets/bio-effects-radiation.html (last visited June 7, 2017).

[39] LA1 SER at 50.

[40] *Id.* at 49-50.

[41] *Id.* at 40-41.

[42] *Id.* at 41.

[43] *See* Amended Source Materials License.

Pohakuloa.[44] Each site-specific ERMP also contains site-specific dose calculations for each radiation control area.[45] The Army's submission addresses the previously described licensing conditions imposed by the first license amendment.[46]

The site-specific ERMP for Pohakuloa addresses the environmental pathways recommended for sampling in the programmatic ERMP, including surface water and sediment, groundwater, and soil.[47] The site-specific ERMP relies almost exclusively on sediment sampling.[48] The sediment sampling location is described as a point located at an intermittent stream, downstream from the radiation control areas.[49] After submitting the second license amendment application, however, the Army notified the NRC that it intends to relocate the sampling location further upstream, but within the same stream channel, and at the boundary of the radiation control area.[50] The site-specific ERMP also commits to soil sampling when soil erosion exceeds 25 square meters in a radiation control area.[51]

The site-specific ERMP does not include surface water sampling because Pohakuloa has only intermittent surface water features.[52] No groundwater sampling is planned at Pohakuloa because no groundwater wells are currently located at or near radiation control areas,[53] which is a prerequisite for groundwater sampling under the programmatic ERMP.[54] Furthermore, the programmatic ERMP does not require air sampling at Pohakuloa.[55]

The site-specific ERMP also assesses and concludes that the all-pathway dose for each Pohakuloa radiation control area does not exceed an annual total

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[44] Programmatic Approach for Preparation of Site-Specific Environmental Radiation Monitoring Plans (Sept. 21, 2016) (ADAMS Accession No. ML16265A221); *see also* Safety Evaluation Report for the U.S. Army's Possession License for Depleted Uranium from Davy Crockett M101 Spotting Rounds — Amendment to Address License Conditions Nos. 18 and 19 (Jan. 2017) at 10 (ADAMS Accession No. ML16343A163) [hereinafter LA2 SER].

[45] LA2 SER at 17.

[46] *Id.* at 11, 24.

[47] Final Site-Specific Environmental Radiation Monitoring Plan Pohakuloa Training Area (Sept. 2016) at 2-1 to 2-2 (ADAMS Accession No. ML16265A231) [hereinafter Site-Specific ERMP].

[48] *See id.*

[49] *Id.* at 2-1.

[50] NRC Staff's Answer to Requests for Hearing and Petitions to Intervene Filed by Cory Harden, James Albertini, Ruth Aloua, and Hāwane Rios (May 1, 2017) at 10 n.48 [hereinafter NRC Staff Answer].

[51] Site-Specific ERMP at 2-1 to 2-2.

[52] *Id.* at 2-1.

[53] *Id.*

[54] *See* LA1 SER at 47.

[55] *Id.* at 45-46.

effective dose equivalent of 1.0 millirem (10 microSieverts).[56] The Army's dose assessment is based on the licensed amount of DU and a conservative model of a hypothetical residential farmer living in the radiation control area.[57]

The NRC Staff reviewed the Army's second license amendment application and concluded that the site-specific ERMPs, including Pohakuloa, were consistent with the programmatic ERMP and prior licensing conditions.[58] The Staff also verified that the site-specific dose assessments demonstrated that radiation doses would not exceed an annual total effective dose equivalent of 1.0 millirem (10 microSieverts) for radiation control areas.[59]

In response to a *Federal Register* notice of an opportunity to request a hearing regarding the second license amendment application,[60] Petitioners each filed a timely *pro se* petition.[61] The NRC Staff and the Army oppose each petition, arguing that Petitioners lack standing and fail to proffer any admissible contentions.[62] Petitioners did not exercise their right to reply to the Staff and the Army answers.[63]

II. DISCUSSION

To obtain a hearing, a petitioner must establish standing and propose at least one admissible contention.[64] We conclude that each Petitioner fails to establish standing; therefore, we deny all four hearing requests on this basis. Furthermore, we conclude that Petitioners fail to provide an admissible contention; therefore, we also deny their hearing requests on this additional basis.

A. Standing Requirements

Pursuant to section 189a of the Atomic Energy Act, the NRC "shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceed-

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[56] Site-Specific ERMP at 4-4.

[57] *See id.* at 4-1; LA2 SER at 14.

[58] LA2 SER at 5.

[59] *Id.*

[60] 82 Fed. Reg. at 10,031.

[61] *See supra* note 1.

[62] NRC Staff Answer; US Army Installation Command's Answer to Requests for Hearing by Mr. Cory Harden, Mr. Jim Albertini, Ms. Hāwane Rios, and Ms. Ruth Aloua ("Petitioners") (May 1, 2017).

[63] 10 C.F.R. § 2.309(i)(2).

[64] *Id.* § 2.309(a); *see also id.* § 2.309(d) (listing standing requirements); *id.* § 2.309(f)(1) (listing contention admissibility requirements).

ing."[65] The NRC will grant a hearing request if the petitioner meets the standing requirements of 10 C.F.R. § 2.309(d) and submits at least one admissible contention according to 10 C.F.R. § 2.309(f).[66] Under section 2.309(d), regarding standing, the petitioner's hearing request must contain:

> (i) The name, address and telephone number of the requestor or petitioner;
>
> (ii) The nature of the requestor's/petitioner's right under the [Atomic Energy Act or National Environmental Policy 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; and
>
> (iv) The possible effect of any decision or order that may be issued in the proceeding on the requestor's/petitioner's interest.[67]

When assessing whether an individual has set forth a sufficient interest in the proceeding to intervene, the Commission has applied contemporaneous judicial concepts of standing — requiring injury, causation, and redressability.[68] To establish traditional standing in a materials license proceeding, a petitioner must allege "(1) an actual or threatened, concrete and particularized injury, that (2) is fairly traceable to the challenged action, (3) falls among the general interests protected by the Atomic Energy Act (or other applicable statute, such as the National Environmental Policy Act), and (4) is likely to be redressed by a favorable decision."[69]

The alleged injury must not be "conjectural" or "hypothetical."[70] Additionally, in the case of a license amendment, the petitioner must also demonstrate that the amendment will cause "'a distinct new harm or threat' apart from the activities already licensed."[71] Lastly, the petitioner must show that "its actual or threatened injuries can be cured by some action of the tribunal."[72]

In certain circumstances, the Commission has adopted a proximity presump-

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[65] 42 U.S.C. § 2239(a)(1)(A).

[66] 10 C.F.R. § 2.309(a).

[67] *Id.* § 2.309(d)(1).

[68] *Florida Power & Light Co.* (Turkey Point Nuclear Generating Units 3 and 4), CLI-15-25, 82 NRC 389, 394 (2015); *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995).

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

[70] *Sequoyah Fuels Corp. and General Atomics* (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994).

[71] *International Uranium (USA) Corp.* (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 251 (2001) (citations omitted).

[72] *Sequoyah Fuels Corp.,* CLI-01-2, 53 NRC at 14.

tion that allows a petitioner living,[73] having frequent contacts,[74] or having a significant property interest[75] within 50 miles of a nuclear power reactor to establish standing without the need to make an individualized showing of injury, causation, and redressability.[76] The automatic proximity presumption, however, does not apply in materials licensing proceedings.[77] Instead, "[w]hether and at what distance a petitioner can be presumed to be affected must be judged on a case-by-case basis, taking into account the nature of the proposed action and the significance of the radioactive source."[78] Under this "proximity-plus" approach, a petitioner must demonstrate that "the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences."[79]

More generally, when analyzing a petitioner's standing, a licensing board must apply the following principles. First, the "petitioner bears the burden to provide facts sufficient to establish standing."[80] It is generally sufficient if the petitioner provides plausible factual allegations that satisfy each element of standing.[81] Second, a licensing board is to construe the petition in favor of the petitioner for purposes of standing.[82] Third, "*pro se* petitioners are held to less rigid pleading standards, so that parties with a clear — but imperfectly stated — interest in the proceeding are not excluded."[83]

B. Petitioners' Standing

Petitioners premise their claims to standing on grounds that are similar to those rejected by the earlier licensing board. For the following reasons, we conclude that all four *pro se* Petitioners fail to establish standing here as well.

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

[74] *Sequoyah Fuels Corp.,* CLI-94-12, 40 NRC at 75.

[75] *USEC Inc.* (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 314 (2005).

[76] *St. Lucie,* CLI-89-21, 30 NRC at 329.

[77] *Nuclear Fuel Services, Inc.* (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004).

[78] *Ga. Tech,* CLI-95-12, 42 NRC at 116-17.

[79] *Id.* at 116.

[80] *PPL Bell Bend, LLC* (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010).

[81] *U.S. Army,* LBP-10-4, 71 NRC at 229 (citing *Lujan v. Def. of Wildlife,* 504 U.S. 555, 561 (1992)).

[82] *Ga. Tech,* CLI-95-12, 42 NRC at 115.

[83] *U.S. Army,* CLI-10-20, 72 NRC at 192.

1. Petitioners Albertini and Harden

Petitioners Albertini and Harden are similarly situated for purposes of standing. Both individuals live approximately 30 miles from Pohakuloa and both describe some closer, limited contacts with the facility.[84] Petitioner Albertini states that he has been on the grounds of Pohakuloa for community meetings and to conduct Hawaiian ceremonies.[85] He also asserts that he has spent countless hours protesting and conducting religious ceremonies outside the perimeter of Pohakuloa.[86] He states that he has used Mauna Kea Park facilities within 1.5 miles of Pohakuloa.[87] Petitioner Harden states that she attended summer camp about 1 mile from the Pohakuloa boundary between 1957 and 1962.[88] She also states that she has spent 1 to 2 hours on the Pohakuloa grounds or within 100 feet of the boundary several times in the last 10 years and drives past Pohakuloa several times a year.[89] Both Petitioners state that they are concerned about the health effects of DU on themselves and other island residents.[90]

To establish proximity-plus standing, Petitioners Albertini and Harden are required to show, in part, that the licensing action involves a significant source of radioactivity that produces an obvious potential for offsite consequences.[91] Neither Petitioner establishes that the DU spotting rounds satisfy this requirement.[92]

First, Petitioners Albertini and Harden fail to demonstrate that the DU at Pohakuloa constitutes a significant source of radioactivity. In the initial licensing proceeding, Petitioner Harden asserted that 2000 spotting rounds may have been fired at Pohakuloa, depositing approximately 838 pounds (380 kilograms) of DU.[93] In addressing this claim, the prior licensing board noted that the Army's application, for calculations of potential radiation exposure, presumed a higher

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[84] Albertini Petition at 1; Harden Petition at 1.

[85] Albertini Petition at 1.

[86] *Id.*

[87] *Id.*

[88] Harden Petition at 1.

[89] *Id.*

[90] Albertini Petition at 1-2; Harden Petition at 1. A petitioner cannot establish individual standing based on the interest of another person or represent them without express authorization. *See St. Lucie,* CLI-89-21, 30 NRC at 329. As a result, the Petitioners cannot establish standing based on another's interest.

[91] *Ga. Tech,* CLI-95-12, 42 NRC at 116.

[92] *See U.S. Army,* LBP-10-4, 71 NRC at 231-34, 236-37. For reasons identical to those stated in the original source materials licensing proceeding, Petitioners have failed to establish that the DU spotting rounds involve a significant source of radioactivity that produces an obvious potential for offsite consequences. *See supra* note 18.

[93] *U.S. Army,* LBP-10-4, 71 NRC at 231.

amount of DU, which nonetheless resulted in a concentration of radioactivity that was significantly lower than decommissioning screening values for uranium.[94]

In this proceeding, Petitioners Albertini and Harden again reference 2000 DU spotting rounds,[95] without addressing how this amount of DU represents a significant source of radioactivity. Under the amended license, the Army may possess 140 kilograms, or approximately 309 pounds, of DU at Pohakuloa,[96] an amount less than that referenced by the Petitioners or addressed in the prior licensing proceeding. As the Commission previously concluded, the licensed concentrations of DU do not constitute a significant source of radioactivity, because there remains no indication that the DU concentrations at Pohakuloa even exceed the decommissioning screening values for uranium.[97]

Second, Petitioners Albertini and Harden fail to demonstrate that onsite radioactivity produces an obvious potential for offsite consequences. In this proceeding, the Petitioners generally reference air and water as potential DU pathways with offsite consequences.[98] More specifically, Petitioner Albertini references the "possibility of DU oxide dust particles blowing in the wind," with the potential to be transferred even further by vehicles traveling near Pohakuloa.[99] He notes that "resuspension" of DU is a risk associated with high-wind conditions, brush fires, and "live-fire."[100] He further states that "DU burned by high explosives forms DU oxide particles that can be carried long distances by the wind."[101] He asserts that water wells have been drilled at Pohakuloa and its vicinity and water has been found at depths "much shallower" than anticipated.[102] He claims that Pohakuloa is subject to flash flooding that can introduce "toxins" into the groundwater, resulting in toxins being "flushed" down to the ocean.[103]

Similarly, Petitioner Harden references resuspension of DU from high winds, live-fire training, wildfires, and controlled burns.[104] She also asserts that the NRC Staff's Safety Evaluation Report "does not account for fire tornadoes,

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[94] *Id.* at 231-32.

[95] Albertini Petition at 3; Harden Petition at 2.

[96] Amended Source Materials License at 1.

[97] *U.S. Army,* CLI-10-20, 72 NRC at 190-91; *see also U.S. Army,* LBP-10-4, 71 NRC at 231. As previously discussed, *see supra* note 2, DU is less radioactive than natural uranium by mass. *See* IAEA Depleted Uranium; NRC Frequently Asked Questions About Depleted Uranium.

[98] *See* Albertini Petition at 1-3; Harden Petition at 1-3.

[99] Albertini Petition at 2.

[100] *Id.* at 3.

[101] *Id.* at 11.

[102] *Id.* at 2.

[103] *Id.* at 4.

[104] Harden Petition at 1.

dust storms, and other high-wind events."[105] She contends that groundwater in the vicinity of Pohakuloa has been found at 500 feet — a shallower depth than that identified in the site-specific ERMP.[106] Without further explanation, she also states that the possibility of animals carrying DU out of radiation control areas should be evaluated.[107]

We may not consider the potential for offsite air and groundwater pathways at Pohakuloa as a basis for standing in this proceeding because the possibility that these will serve as pathways was resolved by the first license amendment.[108] As previously stated, the Army's amended license does not require air monitoring and limits groundwater monitoring to wells in or near radiation control areas,[109] of which there are currently none at Pohakuloa.[110] Air monitoring was found unnecessary and groundwater monitoring was limited by the first license amendment, because the risks associated with these pathways were evaluated by the NRC Staff and found to be unlikely sources of radiation exposure.[111] For this reason and the reasons elaborated in the preceding paragraphs, Petitioners Albertini and Harden fail to establish proximity-plus standing.

Petitioners Albertini and Harden also fail to satisfy traditional standing criteria. To establish traditional standing the Petitioners must show, in part, a concrete and particularized injury, actual or threatened, that is fairly traceable to the Army's licensing action.[112] Petitioners likewise fail to satisfy this burden. At a minimum, Petitioners fail to articulate a plausible chain of causation or, in this context, a plausible DU exposure pathway. As previously discussed, Petitioners assert air and water pathways, but these pathways were addressed in the prior licensing proceedings and are outside the scope of this proceeding.

Finally, Petitioners Albertini and Harden lack standing because they have failed to show how the site-specific monitoring plan creates "'a distinct new harm or threat' apart from the activities already licensed," a requirement to raise a license amendment challenge.[113]

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[105] *Id.* at 3.

[106] *Id.* at 12.

[107] *Id.* at 2.

[108] Regarding the obvious potential for offsite consequences, we note that the prior licensing board addressed similar theories regarding air and water pathways. That licensing board concluded that there was no apparent means for the DU to spread beyond its current location, including consideration of alleged pathways associated with groundwater, wind, munitions use, and controlled grass fires. *U.S. Army,* CLI-10-20, 72 NRC at 191; *see also U.S. Army,* LBP-10-4, 71 NRC at 232-34, 236, 239.

[109] LA1 SER at 49-50.

[110] Site-Specific ERMP at 2-1.

[111] LA1 SER at 49-50.

[112] *Sequoyah Fuels Corp.,* CLI-01-2, 53 NRC at 13.

[113] *See White Mesa Uranium Mill,* CLI-01-21, 54 NRC at 251 (citations omitted).

2. Petitioners Rios and Aloua

Petitioners Rios and Aloua are similarly situated for purposes of standing. Both individuals reside in Waiki'i Ranch, about 5 miles from Pohakuloa.[114] Both Petitioners state that they are concerned about the personal health effects of DU.[115] Petitioner Rios also states that she is concerned about potential air, water, and food source contamination and describes a personal increase in respiratory, liver, and digestive health problems during the 2 years she has lived in Waiki'i Ranch.[116] Petitioner Aloua also states that she is concerned about the effects of DU on farm crops and animals at Waiki'i Ranch, soldiers at Pohakuloa, and "our born and unborn children."[117]

To establish proximity-plus standing, Petitioners Rios and Aloua are required to show, in part, that the licensing action involves a significant source of radioactivity that produces an obvious potential for offsite consequences.[118] Both Petitioners fail to establish that the DU in radiation control areas satisfies this requirement.

First, Petitioners Rios and Aloua do not directly assert that the DU spotting rounds at Pohakuloa are a significant source of radioactivity. Any potential argument they may have regarding this issue is implicit in their more general concern that radiation contamination is occurring and should be monitored.[119] Without more, however, Petitioners Rios and Aloua fail to provide any factual allegations to establish that the DU spotting rounds are a significant source of radioactivity.

Second, Petitioners Rios and Aloua assert general claims regarding air and water contamination, which may affect them personally as well as their food sources.[120] For example, Petitioner Rios states generally that her "water source

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[114] *See* Rios Petition at 2; Aloua Petition at 2.

[115] Rios Petition at 2; Aloua Petition at 2.

[116] Rios Petition at 2.

[117] Aloua Petition at 2. As previously stated, Petitioners cannot establish individual standing based on another's interest. *See St. Lucie,* CLI-89-21, 30 NRC at 329.

[118] *Ga. Tech,* CLI-95-12, 42 NRC at 116.

[119] *See* Rios Petition at 1-3; Aloua Petition at 1-3.

[120] Rios Petition at 1-2; Aloua Petition at 1-2. Uranium is generally introduced into the body through the ingestion of food and water and the inhalation of air. *See* NRC, *Background Information on Depleted Uranium,* https://www.nrc.gov/waste/llw-disposal/llw-pa/uw-streams/bg-info-du.html (last visited June 7, 2017). If inhaled, the size of the uranium aerosols and the solubility of the uranium compounds in the lungs and gut influence their effect on the body. *Id.* Coarse particles are captured in the upper respiratory system and are exhaled or transferred to the throat and swallowed. *Id.* Fine particles reach the lower part of the lungs, and if not easily soluble, tend to remain in the lungs for relatively long periods of time before being transported to the bloodstream. *Id.* Most uranium in the bloodstream will be excreted through urine in a few days, but a

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is fed by Mauna Kea and our food sources are fed by the same water."[121] Similarly, Petitioner Aloua states generally that she, living "on the western flanks of Hualālai, along with the ʻāina that guides [her], Kaloko-Honokōhau, may be at threat due to DU being carried on the winds."[122] The Board interprets the Petitioners' pleadings as describing possible air or groundwater pathways for offsite consequences. Similar to Petitioners Albertini and Harden, Petitioners Rios and Aloua fail to describe as a basis for their standing a DU pathway that provides a potential exposure risk that has not already been resolved in the prior licensing proceeding and therefore do not establish standing under a proximity presumption.

Petitioners Rios and Aloua also fail to satisfy traditional standing criteria. To establish traditional standing Petitioners must show, in part, a concrete and particularized injury, actual or threatened, that is fairly traceable to the Army's licensing action.[123] Petitioners fail to satisfy this burden. Like Petitioners Albertini and Harden, Petitioners Rios and Aloua fail to articulate a plausible chain of causation or, in this context, a plausible DU transport mechanism. Petitioners briefly describe potential air and water pathways,[124] but similar pathways were resolved in the prior licensing proceeding and reconsideration is precluded by the air and groundwater monitoring requirements set forth in the amended licensing basis.

Finally, Petitioners Rios and Aloua lack standing because they have failed to show how the site-specific monitoring plan creates "'a distinct new harm or threat' apart from the activities already licensed," a requirement for a license amendment challenge.[125]

For these reasons, Petitioners Rios and Aloua fail to establish standing; therefore, we are compelled to deny their hearing requests.

C. Contention Admissibility

An admissible contention must (1) provide a specific statement of the legal

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small fraction remains in the kidneys, bones, and other soft tissue. *Id.* If ingested, most uranium is excreted in feces within a few days and never reaches the bloodstream. *Id.* If uranium is ingested or inhaled in sufficient amounts, it can be harmful primarily because of its chemical toxicity. *Id.* Similar to mercury, cadmium, and other heavy-metal ions, uranium can depress renal function and, in high concentrations, uranium can cause kidney damage or, in extreme cases, renal failure. *Id.* Because uranium is mildly radioactive, once inside the body it does irradiate organs, but its primary health effect is toxicological, not radiological. *Id.*

[121] Rios Petition at 2.

[122] Aloua Petition at 2.

[123] *Sequoyah Fuels Corp.,* CLI-01-02, 53 NRC at 13.

[124] Rios Petition at 1-2; Aloua Petition at 1-2.

[125] *See White Mesa Uranium Mill,* CLI-01-21, 54 NRC at 251 (citations omitted).

or factual issue sought to be raised; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised is within the scope of the proceeding; (4) demonstrate that the issue raised is material to the findings the NRC must make to support the action that is involved in the proceeding; (5) provide a concise statement of the alleged facts or expert opinions that support the petitioner's position and upon which the petitioner intends to rely at the hearing; and (6) provide sufficient information to show that a genuine dispute exists in regard to a material issue of law or fact.[126] Failure to satisfy any of these requirements is sufficient to render a contention inadmissible.[127]

Contentions must be limited to issues that are relevant to the pending application.[128] Contentions are not admissible unless they are within the scope of the proceeding for which the licensing board has been delegated jurisdiction.[129] The scope of this license amendment proceeding is limited. As previously stated, the second license amendment request addresses licensing conditions requiring the submission of site-specific ERMPs and site-specific dose calculations that are consistent with the programmatic ERMP and dose modeling methodology approved by the first licensing amendment to the source materials license.[130]

1. Contentions Proposed by Petitioners Albertini and Harden

Petitioner Albertini submitted thirteen contentions, Petitioner Harden submitted five contentions, and each submitted a number of general comments.[131] Petitioner Albertini's contentions and concerns appear to criticize the U.S. military's historic activities at Pohakuloa, to assert that more DU is present on the site than has been identified, and to advocate more extensive and "independent" DU surveys and monitoring, particularly air sampling.[132] Mr. Albertini also expresses his concerns with the Pohakuloa ERMP and urges additional DU testing and groundwater sampling.[133] Petitioner Harden contends that the NRC should require the Army to "remove all DU" and "correct shortcomings in studies the license is based on," listing several factors that studies should account for or

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[126] 10 C.F.R. § 2.309(f)(1)(i)-(vi).

[127] *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999).

[128] *See Yankee Atomic Electric Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 204 & n.7 (1998).

[129] *Nuclear Management Co., LLC* (Palisades Nuclear Plant), LBP-06-10, 63 NRC 314, 338, *aff'd,* CLI-06-17, 63 NRC 727 (2006).

[130] 82 Fed. Reg. at 10,031.

[131] *See* Albertini Petition at 2-13; Harden Petition at 1-17.

[132] *See* Albertini Petition at 2-3.

[133] *See id.* at 1-3.

require.[134] Ms. Harden asks that the Staff reconsider the license application "or have a more appropriate agency address the DU."[135] She also expresses concern over (1) the amount, location, and possible aerial migration of DU at Pohakuloa; (2) the extent, adequacy, and impartiality of surveys conducted at Pohakuloa for DU; and (3) the risks from DU used for purposes other than spotting rounds, which may be "subjected to impacts and explosions from activities such as target practice."[136] Lastly, she also challenges the adequacy of the Staff's Safety Evaluation Report.[137]

The contentions posed by Petitioners Albertini and Harden are either outside the scope of this proceeding or are not material to the findings that the Staff must make with respect to the second license amendment. In a license amendment proceeding, a petitioner's contentions must focus on the subject matter identified in the hearing notice, the amendment application, and the Staff's environmental responsibilities relating to the application.[138] As stated in the hearing notice for the second license amendment, this proceeding concerns the approval and incorporation into License No. SUC-1593 of site-specific ERMPs for the Pohakuloa Training Area and the other licensed sites, and the approval of site-specific dose calculations.[139] The contentions proposed by Petitioners Albertini and Harden are outside the narrow scope of this proceeding or not material to the findings the Staff must make regarding the second license amendment, because they challenge matters already resolved in a prior licensing action.[140]

2. Contentions Proposed by Petitioners Rios and Aloua

Petitioners Rios and Aloua assert identical contentions. First, Petitioners Rios and Aloua contend that Pohakuloa is located on illegally seized and occupied lands belonging to the Hawaiian Kingdom.[141] Second, they assert that a lease from the State of Hawaii to the Army requires removal of "waste materials" resulting from the use of the leased property, including the removal of DU.[142] Third, Petitioners Rios and Aloua contend that "[c]omprehensive, independent, testing and monitoring" has not been done to determine the full extent of ra-

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[134] *See* Harden Petition at 2.

[135] *Id.*

[136] *See id.*

[137] *Id.* at 2-3.

[138] *Long Island Lighting Co.* (Shoreham Nuclear Power Station, Unit 1), LBP-91-39, 34 NRC 273, 282 (1991).

[139] *See* 82 Fed. Reg. at 10,031.

[140] 10 C.F.R. § 2.309(f)(1)(iii)-(iv).

[141] Rios Petition at 2; Aloua Petition at 3.

[142] Rios Petition at 2; Aloua Petition at 3.

diation contamination and should be conducted.[143] Fourth, they assert that the Army should be required to comply with requests in a 2008 local government resolution urging the Army to address the hazards of DU at Pohakuloa.[144] Fifth, Petitioners Rios and Aloua contend that the Army should be required to do air monitoring for DU at Waiki'i Ranch.[145] Lastly, they both seek to incorporate contentions submitted by others, including Petitioners Albertini and Harden.[146]

Petitioners' claims that the Army is illegally occupying or failing to satisfy lease obligations associated with Pohakuloa are property claims that do not address environmental monitoring or dose modeling and, therefore, do not fall within the scope of the second license amendment. Similarly, Petitioners' assertions that the Army must comply with requests contained in a local government resolution are legal concerns that do not address environmental monitoring or dose modeling.

Petitioners' contentions that "[c]omprehensive, independent, testing and monitoring" for radiation contamination has not been conducted and should be completed fails to address the licensing record associated with this proceeding. In applying for the original source materials license and the first license amendment, the Army described and the NRC Staff reviewed the process for identifying radiation control areas where DU spotting rounds were located — the source of any radiation contamination.[147] In turn, for both the first and second license amendments, the Army developed and the NRC Staff reviewed the process for monitoring DU pathways associated with these areas.[148] Moreover, as previously stated, Petitioners Rios and Aloua only reference air and groundwater pathways as areas of concern, and these pathways were previously resolved and cannot be challenged here. In sum, Petitioners Rios and Aloua identify "testing and monitoring" concerns that are outside of the limited scope of the second license amendment proceeding. Because air monitoring requirements were resolved in the previous proceeding, Petitioners' specific claims that air monitoring at Waiki'i Ranch should be required are also outside the scope of this proceeding.[149]

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[143] Rios Petition at 3; Aloua Petition at 3.

[144] Rios Petition at 3; Aloua Petition at 3.

[145] Rios Petition at 3; Aloua Petition at 3.

[146] Rios Petition at 3; Aloua Petition at 3. Petitioners Rios and Aloua also "concur with contentions submitted by . . . Dr. Lorrin Pang, and Dr. Michael Reimer." Rios Petition at 3; Aloua Petition at 3. Drs. Pang and Reimer, however, are not participants in this proceeding and have not proffered contentions.

[147] *See* License SER at 16; LA1 SER at 25.

[148] *See* LA1 SER at 42-50; LA2 SER at 9-11; Site-Specific ERMP at 2-1 to 2-2.

[149] Alternatively, the Board concludes that Petitioners' proffered contentions are not material to

(Continued)

Lastly, because Petitioners Rios and Aloua fail to submit at least one admissible contention of their own, they are prohibited by Commission precedent from seeking to incorporate by reference the proposed contentions of others.[150] Therefore, Petitioners Rios and Aloua could not incorporate by reference any contentions proposed by Petitioners Albertini and Harden even if they were admissible.

III. CONCLUSION

We deny the hearing requests and dismiss the petitions of Petitioners Albertini, Harden, Rios, and Aloua for lack of standing and failure to proffer an admissible contention.

Any Petitioner may appeal this decision to the Commission, pursuant to 10 C.F.R. § 2.311, within 25 days of service of this Memorandum and Order.

It is so ORDERED.

THE ATOMIC SAFETY AND
LICENSING BOARD

William J. Froehlich, Chairman
ADMINISTRATIVE JUDGE

Dr. Gary S. Arnold
ADMINISTRATIVE JUDGE

Dr. Sue H. Abreu
ADMINISTRATIVE JUDGE

Rockville, Maryland
June 13, 2017

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this proceeding pursuant to 10 C.F.R. § 2.309(f)(1)(iv). "[T]he Commission has defined a 'material' issue as meaning one in which 'resolution of the dispute would make a difference in the outcome of the licensing proceeding.'" *Palisades,* LBP-06-10, 63 NRC at 338-39 (quoting Rules of Practice for Domestic Licensing Proceedings — Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168, 33,172 (Aug. 11, 1989)); *see also Southern Nuclear Operating Co.* (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 254 (2007) ("[T]he subject matter of the contention must impact the grant or denial of a pending license application."). Issues regarding property rights and previously addressed licensing determinations are not material to this proceeding.

[150] *Consolidated Edison Co. of New York* (Indian Point Nuclear Generating Units 1 and 2), CLI-01-19, 54 NRC 109, 133 (2001).

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Agape Church, Inc. v. FCC, 738 F.3d 397, 411 (D.C. Cir. 2013)
agency's final rule qualifies as the logical outgrowth of its proposed rule if interested parties should have anticipated that the change was possible; CLI-17-8, 85 NRC 192, 193 (2017)

Alaska Department of Transportation and Public Facilities (Confirmatory Order Modifying License), CLI-04-26, 60 NRC 399, 409 (2004)
NRC Staff has considerable latitude in choosing enforcement weapons; CLI-17-6, 85 NRC 105 n.48 (2017)

All Operating Boiling Water Reactor Licensees with Mark I and Mark II Containments: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents, CLI-13-2, 77 NRC 39, 44 (2013)
scope of hearing on an enforcement order is limited to whether the order should be sustained in the form it was issued; CLI-17-6, 85 NRC 105 n.51 (2017)

All Operating Boiling Water Reactor Licensees with Mark I and Mark II Containments: Order Modifying Licenses with Regard to Reliable Hardened Containment Vents, CLI-13-2, 77 NRC 39, 45-49 (2013)
case law regarding enforcement actions is discussed in context of a challenge to post-Fukushima non-enforcement orders and hearing petitioner's attempt to distinguish the two scenarios for purposes of determining hearing rights; CLI-17-6, 85 NRC 106 n.52 (2017)

Am. Fed'n of Labor and Cong. of Indus. Orgs. v. Donovan, 757 F.2d 330, 338 (D.C. Cir. 1985)
final rule need not be identical to the original proposed rule, the whole rationale of notice and comment resting on the expectation that the final rules will be somewhat different and improved from rules originally proposed by the agency; CLI-17-8, 85 NRC 193 (2017)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-08-13, 67 NRC 396, 400 (2008)
license renewal may be set aside or appropriately conditioned even after it has been issued, upon subsequent administrative or judicial review; CLI-17-7, 85 NRC 114 n.13 (2017)

AmerGen Energy Co., LLC (Oyster Creek Nuclear Generating Station), CLI-09-7, 69 NRC 235, 287 (2009)
burden of satisfying the reopening requirements is a heavy one, and proponents bear the burden of meeting all of the 10 C.F.R. 2.326(a)-(b) requirements; LBP-17-1, 85 NRC 7 (2017)
proponent of a motion to reopen bears a heavy burden; CLI-17-7, 85 NRC 115-16 (2017)

Bellotti v. NRC, 725 F.2d 1380, 1382 (D.C. Cir. 1983)
finding more expansive hearing rights in connection with orders may cause the Commission to be more circumspect in its drafting of orders and to seek to accomplish some reforms informally; CLI-17-6, 85 NRC 107 n.55 (2017)
removing the option to address site-specific order-implementation issues where there is good cause could deter future Commission decisions to impose binding requirements by order, particularly with respect to broadly applicable orders; CLI-17-6, 85 NRC 107 n.55 (2017)

Bellotti v. NRC, 725 F.2d 1380, 1383 (D.C. Cir. 1983)
public participation is automatic with respect to all Commission actions that are potentially harmful to the public health and welfare; CLI-17-6, 85 NRC 104 (2017)
situations in which the Commission amends a license to require additional or better safety measures, which need not involve public hearing rights, are distinguished from situations in which the Commission proposes to amend a license to remove a restriction upon the licensee, which do trigger public hearing rights; CLI-17-6, 85 NRC 104 (2017)

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Calvert Cliffs 3 Nuclear Project, LLC, and Unistar Nuclear Operating Services, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-09-20, 70 NRC 911, 915-16 (2009)

Commission recognizes a proximity presumption in certain proceedings, including COL applications, for petitioners living within 50 miles of the facility, which effectively dispenses with the need to make an affirmative showing of injury, causation, and redressability; LBP-17-2, 85 NRC 20 (2017)

Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-12-16, 76 NRC 63, 67-69 (2012)

Commission suspended issuance of final licensing decisions until the court's remand on temporary storage of radioactive waste was appropriately addressed and held any related contentions in abeyance until further order; CLI-17-8, 85 NRC 170 (2017)

Calvert Cliffs 3 Nuclear Project, LLC, and UniStar Nuclear Operating Services, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-14-8, 80 NRC 71, 74-75 (2014)

Commission lifted suspension on final licensing decisions after approving a generic environmental impact statement and final Continued Storage Rule that addressed the issues in remand; CLI-17-8, 85 NRC 170 (2017)

Calvert Cliffs 3 Nuclear Project, LLC, and Unistar Nuclear Operating Services, LLC (Calvert Cliffs Nuclear Power Plant, Unit 3), CLI-14-8, 80 NRC 71, 79-80 (2014)

Continued Storage Rule codifies NRC's generic determinations regarding pertinent environmental impacts associated with continued storage of spent nuclear fuel; LBP-17-3, 85 NRC 79 (2017)

Citizens Awareness Network v. NRC, 59 F.3d 284, 294-95 (1st Cir. 1995)

affirmatively authorizing licensee to undertake some new, previously unlicensed activity is the defining feature of a license amendment for AEA purposes; CLI-17-6, 85 NRC 104 (2017)

exercising discretion in enforcement of a term of an order requiring additional safety measures is not analogous to affirmatively authorizing licensee to undertake some new, previously unlicensed activity; CLI-17-6, 85 NRC 104 (2017)

Citizens Awareness Network v. NRC, 59 F.3d 284, 295 (1st Cir. 1995)

substance of an NRC action, not the particular label NRC chooses to assign to its action, determines entitlement to a section 189a hearing; CLI-17-6, 85 NRC 104 (2017)

Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-93-21, 38 NRC 87, 92 (1993)

petitioner's standing is generally determined by applying contemporaneous judicial concepts of standing; LBP-17-2, 85 NRC 20 (2017)

Cleveland Electric Illuminating Co. (Perry Nuclear Power Plant, Unit 1), CLI-96-13, 44 NRC 315, 326 (1996)

agency actions not formally labeled as license amendments nevertheless can constitute de facto license amendments and accordingly trigger hearing rights for the public only if the NRC action has granted licensee any greater authority or otherwise altered the original terms of the license; CLI-17-6, 85 NRC 100 (2017)

Commonwealth Edison Co. (Zion Nuclear Power Station, Units 1 and 2), CLI-00-5, 51 NRC 90, 96 (2000)

hearing opportunities do not accompany every type of NRC regulatory action; CLI-17-6, 85 NRC 100 (2017)

Consolidated Edison Co. of New York (Indian Point Nuclear Generating Units 1 and 2), CLI-01-19, 54 NRC 109, 133 (2001)

petitioners who fail to submit at least one admissible contention of their own are prohibited by Commission precedent from seeking to incorporate by reference the proposed contentions of others; LBP-17-4, 85 NRC 247 (2017)

Consumers Energy Co. (Palisades Nuclear Plant), CLI-07-18, 65 NRC 399, 413, 415 (2007)

petitioner's concerns must be explicitly tied to the redacted information that it seeks; CLI-17-4, 85 NRC 73 n.70 (2017)

Crow Butte Resources, Inc. (In Situ Leach Facility, Crawford, Nebraska), CLI-09-9, 69 NRC 331, 343 (2009)

petitioner must make a fresh demonstration of standing if its circumstances have changed since it last demonstrated standing; LBP-17-2, 85 NRC 19 (2017)

Crow Butte Resources, Inc. (Marsland Expansion Area), CLI-14-2, 79 NRC 11, 13-14 (2014)

Commission defers to board rulings on contention admissibility unless an appeal demonstrates an error of law or abuse of discretion; CLI-17-2, 85 NRC 40 (2017); CLI-17-5, 85 NRC 91 (2017)

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Curators of the University of Missouri, CLI-95-1, 41 NRC 71, 100 (1995)
guidance documents do not impose requirements upon licensees but instead set forth one way in which licensee or applicant can comply with NRC regulations; CLI-17-8, 85 NRC 192 n.9 (2017)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001)
contention pleading standard of 10 C.F.R. 2.309(f)(1) is strict by design; LBP-17-2, 85 NRC 22 (2017)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 638 (2004)
appellant's failure to challenge board ruling that its proposed contention was outside the scope of the proceeding was sufficient justification for denying appeal; CLI-17-2, 85 NRC 40 n.40 (2017)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 560-61 (2005)
emergency planning issues are addressed as part of the agency's continuing oversight of licensees; CLI-17-7, 85 NRC 118 (2017)
proponent of a rule waiver must demonstrate that special circumstances are unique to the facility rather than common to a large class of facilities; CLI-17-5, 85 NRC 92 (2017)

Dominion Nuclear Connecticut, Inc. (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 563 (2005)
any person may file a request to institute a proceeding pursuant to section 2.202 to modify, suspend, or revoke a license, or for any other action as may be proper; CLI-17-7, 85 NRC 118 (2017)

Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site), CLI-07-27, 66 NRC 215, 235 (2007)
incomplete information is not necessarily a fatal flaw, or even a flaw at all, in an early site permit proceeding; CLI-17-8, 85 NRC 165 n.35 (2017)

DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-14-7, 80 NRC 1, 7 (2014)
suspension of a licensing proceeding is a drastic action that will be granted if moving forward with the proceeding presents an immediate threat to public health and safety, would be an obstacle to fair and efficient rulemaking, or would prevent implementation of the contemplated policy or rule change; CLI-17-5, 85 NRC 93 (2017)

DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-14-7, 80 NRC 1, 7-9 (2014)
because every license the Commission issues is subject to the possibility of additional requirements, moving forward with a licensing action does not foreclose implementation of any new rules originating from a pending rulemaking petition; CLI-17-5, 85 NRC 93-94 n.38 (2017)

DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-15-4, 81 NRC 221, 242 (2015)
contentions challenging the Continued Storage Rule are inadmissible; CLI-17-8, 85 NRC 171 n.75 (2017)

DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-15-10, 81 NRC 535, 544 (2015)
contentions challenging the Continued Storage Rule are inadmissible; CLI-17-8, 85 NRC 171 n.75 (2017)

DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-15-13, 81 NRC 555, 560-61 (2015)
Commission does not review a combined license application de novo, but rather inquires whether NRC Staff's review was sufficient to support the findings on safety and environmental issues in 10 C.F.R. 52.97(a) and 51.107(a); CLI-17-8, 85 NRC 164 (2017)

DTE Electric Co. (Fermi Nuclear Power Plant, Unit 3), CLI-15-13, 81 NRC 555, 564-65 (2015)
all safety and environmental matters relevant to the combined license application, except those resolved in the contested combined license proceeding, are subject to Commission review in the uncontested proceeding; CLI-17-8, 85 NRC 171 n.75 (2017)

Duke Energy Carolinas, LLC (William States Lee III Nuclear Station, Units 1 and 2), CLI-15-15, 81 NRC 803, 804-05 (2015)
contentions challenging the Continued Storage Rule are inadmissible; CLI-17-8, 85 NRC 171 n.75 (2017)

Duke Energy Corp. (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC 328, 345 (1999)
contentions that raise matters that are the subject of a current rulemaking petition are inadmissible; CLI-17-5, 85 NRC 91 (2017)

when an issue is resolved generically, petitioner's remedy is through the rulemaking process rather than adjudication; CLI-17-2, 85 NRC 39 n.34 (2017)

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-10-11, 71 NRC 287, 317 (2010)

unless it looks genuinely plausible that inclusion of an additional factor or use of other assumptions and models may change the cost-benefit conclusions for the SAMA candidates evaluated, no purpose would be served to further refine the SAMA analysis; LBP-17-1, 85 NRC 9 (2017)

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-1, 75 NRC 39, 41 (2012)

SAMA analysis has been performed as a cost-benefit analysis, examining whether particular hardware or procedural changes may be cost-beneficial to implement, given the degree of risk reduction that reasonably could be expected from the change; CLI-17-7, 85 NRC 114 n.10 (2017)

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-3, 75 NRC 132, 143-44 (2012)

requirements that must be met for grant of a motion to reopen are discussed; CLI-17-7, 85 NRC 116 (2017)

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-6, 75 NRC 352, 361, 368-72 (2012)

Commission will defer to licensing board determinations on threshold matters, including rulings on motions to reopen, absent error of law or abuse of discretion; CLI-17-7, 85 NRC 115 (2017)

Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-12-15, 75 NRC 704, 710, 713-14 (2012)

Commission will defer to licensing board determinations on threshold matters, including rulings on motions to reopen, absent error of law or abuse of discretion; CLI-17-7, 85 NRC 115 (2017)

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-10-19, 72 NRC 98, 100 (2010)

contentions raising claims substantively identical to those raised by a pending rulemaking petition are barred because they are or are about to become the subject of general rulemaking; CLI-17-5, 85 NRC 90 (2017)

Entergy Nuclear Operations, Inc. (Indian Point, Units 2 and 3), CLI-16-7, 83 NRC 293 (2016)

NRC Staff's sensitivity analysis of new information with respect to severe accident mitigation alternatives is discussed; CLI-17-8, 85 NRC 186 (2017)

Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-17-6, 85 NRC 96, 103 (2017)

order relaxation does not change license terms but rather indicates that licensee has demonstrated sufficient cause to warrant NRC not enforcing certain terms of an order against licensee; CLI-17-9, 85 NRC 218-19 (2017)

Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-17-6, 85 NRC 96, 103-04 (2017)

if licensee seeks more formal and durable protections against subsequent revocation by the NRC, it remains free to apply for a license amendment instead of requesting order relaxation; CLI-17-9, 85 NRC 219 (2017)

should NRC grant a relaxation request but determine later that the request either should not have been granted or continued, NRC would not need to engage in a formal process to revoke the relaxation because the pertinent order would still be effectively intact and enforceable; CLI-17-9, 85 NRC 219 (2017)

Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-17-6, 85 NRC 96, 103-04 n.41 (2017)

any NRC Staff decision to revoke a previous order relaxation decision would be supported by a reasoned basis; CLI-17-9, 85 NRC 219 (2017)

if a license amendment application were granted, any subsequent NRC order that would have the effect of revoking the license amendment would itself trigger a hearing opportunity for licensee; CLI-17-9, 85 NRC 219 (2017)

Entergy Nuclear Operations, Inc. (Pilgrim Nuclear Power Station), CLI-17-6, 85 NRC 96, 104 n.42 (2017)

if a license amendment were sought, the Atomic Energy Act and NRC implementing regulations would provide for public hearing; CLI-17-9, 85 NRC 219 (2017)

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Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-06-8, 63 NRC 235, 237-38 (2006)
merely raising the specter of a nuclear accident does not demonstrate irreparable harm; CLI-17-5, 85 NRC 93 (2017)

Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 17, 20-21 (2007)
petition for rulemaking is a more appropriate avenue for resolving generic concerns about the Baker-Just equation than is a site-specific contention; CLI-17-5, 85 NRC 92 (2017)

Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-07-3, 65 NRC 13, 22 n.37 (2007)
board lacked authority to issue a stay; CLI-17-5, 85 NRC 91 (2017)

Entergy Nuclear Vermont Yankee, LLC, and Entergy Nuclear Operations, Inc. (Vermont Yankee Nuclear Power Station), CLI-11-2, 73 NRC 333, 338 (2011)
reopening the record is an extraordinary action; LBP-17-1, 85 NRC 7 (2017)

Exelon Generation Co., LLC, and PSEG Nuclear, LLC (Peach Bottom Atomic Power Station, Units 2 and 3), CLI-05-26, 62 NRC 577, 580-81 (2005)
unless an application poses an obvious potential for offsite radiological consequences, mere proximity to a site is insufficient to give rise to a presumption of standing; CLI-17-4, 85 NRC 64 (2017)

Florida Power & Light Co. (Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Calvert Cliffs Independent Spent Fuel Storage Installation; Nine Mile Point Nuclear Station, Units 1 and 2; R.E. Ginna Nuclear Power Plant; Turkey Point Nuclear Generating Plant, Units 3 and 4; St. Lucie Nuclear Power Plant, Units 1 and 2; Seabrook Station; Duane Arnold Energy Center), CLI-06-21, 64 NRC 30, 34 (2006)
petitioner's failure to comply with pleading requirements for late filings constitutes sufficient grounds for rejecting its petition; LBP-17-2, 85 NRC 24 (2017)

Florida Power & Light Co. (St. Lucie Nuclear Power Plant, Units 1 and 2), CLI-89-21, 30 NRC 325, 329 (1989)
petitioner cannot establish individual standing based on the interest of another person or represent them without express authorization; LBP-17-4, 85 NRC 239 n.90, 242 (2017)
proximity presumption allows petitioner living within 50 miles of a nuclear power reactor to establish standing without the need to make an individualized showing of injury, causation, and redressability; LBP-17-4, 85 NRC 237-38 (2017)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-91-13, 34 NRC 185 (1991)
where the board does not see any adverse safety consequences of granting intervenors' request for dismissal of the remaining contentions, and sees no further role for the board in the proceeding, it grants intervenors' motion, dismisses remaining contentions without prejudice, and terminates the proceeding; LBP-17-3, 85 NRC 85 (2017)

Florida Power & Light Co. (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 9-10 (2001)
emergency planning issues are addressed as part of the agency's continuing oversight of licensees; CLI-17-7, 85 NRC 118 (2017)

Florida Power & Light Co. (Turkey Point Nuclear Generating Units 3 and 4), CLI-15-25, 82 NRC 389, 394 (2015)
when assessing whether an individual has set forth a sufficient interest in the proceeding to intervene, the Commission has applied contemporaneous judicial concepts of standing requiring injury, causation, and redressability; LBP-17-4, 85 NRC 237 (2017)

Florida Power & Light Co. v. Lorion, 470 U.S. 729, 739 (1985)
AEA hearing rights are limited to licensing proceedings only and an NRC decision not to enforce certain terms of an order is not an action listed in AEA § 189a; CLI-17-6, 85 NRC 104 (2017)
hearing opportunities do not accompany every type of NRC regulatory action; CLI-17-6, 85 NRC 100 (2017)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 115 (1995)
licensing board is to construe intervention petition in favor of petitioner for purposes of standing; LBP-17-4, 85 NRC 238 (2017)

when assessing whether an individual has set forth a sufficient interest in the proceeding to intervene, the Commission has applied contemporaneous judicial concepts of standing requiring injury, causation, and redressability; LBP-17-4, 85 NRC 237 (2017)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116 (1995)
under the proximity-plus approach, petitioner must demonstrate that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences; LBP-17-4, 85 NRC 238, 239, 242 (2017)

Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-12, 42 NRC 111, 116-17 (1995)
whether and at what distance petitioner can be presumed to be affected must be judged on a case-by-case basis, taking into account the nature of the proposed action and significance of the radioactive source; LBP-17-4, 85 NRC 238 (2017)

Georgia Power Co. (Vogtle Electric Generating Plant, Units 1 and 2), CLI-92-3, 35 NRC 63, 67 (1992)
document that merely reiterates a party's prior position and general dissatisfaction with the outcome is no substitute for an appellate brief that identifies and explains the claimed errors in a board decision; CLI-17-2, 85 NRC 40 n.40 (2017)

Heckler v. Chaney, 470 U.S. 821, 831 (1985)
agency's decision not to prosecute or enforce, whether through civil or criminal process, is a decision generally committed to an agency's absolute discretion; CLI-17-6, 85 NRC 105 n.48 (2017)

Illinois v. NRC, 591 F.2d 12 (7th Cir. 1979)
NRC decisions not to enforce particular requirements against particular licensees are not equivalent to license amendments and are not subject to hearing opportunities under the AEA; CLI-17-6, 85 NRC 103 n.39 (2017)

International Uranium (USA) Corp. (White Mesa Uranium Mill), CLI-01-21, 54 NRC 247, 251 (2001)
to establish standing to raise a materials license amendment challenge, petitioners must show a distinct new harm or threat apart from the activities already licensed; LBP-17-4, 85 NRC 237, 241, 243 (2017)

Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), LBP-91-39, 34 NRC 273, 282 (1991)
contentions must focus on the subject matter identified in the hearing notice, the amendment application, and the Staff's environmental responsibilities relating to the application; LBP-17-4, 85 NRC 245 (2017)

Louisiana Energy Services, L.P. (National Enrichment Facility), CLI-04-25, 60 NRC 223, 225 (2004)
board lacked authority to issue a stay; CLI-17-5, 85 NRC 91 (2017)

Louisiana Power & Light Co. (Waterford Steam Electric Station, Unit 3), CLI-86-1, 23 NRC 1, 5 (1986)
burden of satisfying the reopening requirements is a heavy one, and proponents bear the burden of meeting all of the 10 C.F.R. 2.326(a)-(b) requirements; LBP-17-1, 85 NRC 7 (2017)

Lujan v. Def. of Wildlife, 504 U.S. 555, 561 (1992)
it is generally sufficient if petitioner provides plausible factual allegations that satisfy each element of standing; LBP-17-4, 85 NRC 238 (2017)

Maine Yankee Atomic Power Co. (Maine Yankee Atomic Power Station), CLI-04-5, 59 NRC 52, 58 n.21 (2004)
NRC's longstanding policy is to encourage licensees to consent to, rather than contest, enforcement actions; CLI-17-6, 85 NRC 105-06 & n.52 (2017)

Massachusetts Coal. of Citizens with Disabilities v. Civil Def. Agency, 649 F.2d 71, 75 (1st Cir. 1981)
merely raising the specter of a nuclear accident does not demonstrate irreparable harm; CLI-17-5, 85 NRC 93 (2017)

Massachusetts v. NRC, 878 F.2d 1516, 1521 (1st Cir. 1989)
exemptions from NRC regulations that NRC grants using authority included in those same regulations do not trigger hearing opportunities under AEA § 189a; CLI-17-6, 85 NRC 104-05 & n.48 (2017)

Massachusetts v. NRC, 878 F.2d 1516, 1522 (1st Cir. 1989)
hearing opportunities do not accompany every type of NRC regulatory action; CLI-17-6, 85 NRC 100 (2017)

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Moog Indus., Inc. v. FTC, 355 U.S. 411, 413 (1958)
government agency alone is empowered to develop the enforcement policy best calculated to achieve the ends contemplated by Congress and to allocate its available funds and personnel in such a way as to execute its policy efficiently and economically; CLI-17-6, 85 NRC 105 n.48 (2017)

NextEra Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 322 (2012)
SAMA analysis focuses on potential additional mitigation measures that could be implemented to further reduce severe accident risk probability or consequences; CLI-17-7, 85 NRC 114 n.10 (2017)
SAMA analysis has been performed as a cost-benefit analysis, examining whether particular hardware or procedural changes may be cost-beneficial to implement, given the degree of risk reduction that reasonably could be expected from the change; CLI-17-7, 85 NRC 114 n.10 (2017)

Nextera Energy Seabrook, LLC (Seabrook Station, Unit 1), CLI-12-5, 75 NRC 301, 323 (2012)
unless it looks genuinely plausible that inclusion of an additional factor or use of other assumptions and models may change the cost-benefit conclusions for the SAMA candidates evaluated, no purpose would be served to further refine the SAMA analysis; LBP-17-1, 85 NRC 9 (2017)

NRDC v. NRC, 647 F.2d 1345, 1363 (D.C. Cir. 1981)
NRC generally need not look beyond the nonproliferation safeguards in determining whether the common defense and security standard is met; CLI-17-3, 85 NRC 56 (2017)

Nuclear Fuel Services, Inc. (Erwin, Tennessee), CLI-04-13, 59 NRC 244, 248 (2004)
proximity presumption does not apply in materials licensing proceedings; LBP-17-4, 85 NRC 238 (2017)

Nuclear Management Co., LLC (Palisades Nuclear Plant), CLI-06-17, 63 NRC 727, 732 (2006)
reply cannot expand the scope of the arguments set forth in the original hearing request; LBP-17-1, 85 NRC 11-12 (2017)

Nuclear Management Co., LLC (Palisades Nuclear Plant), LBP-06-10, 63 NRC 314, 338, *aff'd,* CLI-06-17, 63 NRC 727 (2006)
contentions are not admissible unless they are within the scope of the proceeding for which the licensing board has been delegated jurisdiction; LBP-17-4, 85 NRC 244 (2017)

Nuclear Management Co., LLC (Palisades Nuclear Plant), LBP-06-10, 63 NRC 314, 338-39, *aff'd,* CLI-06-17, 63 NRC 727 (2006)
"material" issue is one in which resolution of the dispute would make a difference in the outcome of the licensing proceeding; LBP-17-4, 85 NRC 247 (2017)

Omaha Public Power District (Fort Calhoun Station, Unit 1), CLI-15-5, 81 NRC 329, 334 (2015)
agency actions not formally labeled as license amendments nevertheless can constitute de facto license amendments and accordingly trigger hearing rights for the public; CLI-17-6, 85 NRC 100 (2017)

Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-16-9, 83 NRC 472, 474 (2016)
agency actions not formally labeled as license amendments nevertheless can constitute de facto license amendments and accordingly trigger hearing rights for the public only if the NRC action has granted licensee any greater authority or otherwise altered the original terms of the license; CLI-17-6, 85 NRC 100 (2017)

Pacific Gas & Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), CLI-16-9, 83 NRC 472, 482 (2016)
Commission generally defers to boards on matters of contention admissibility unless an appeal demonstrates an error of law or abuse of discretion; CLI-17-5, 85 NRC 91 (2017)

Pacific Gas & Electric Co. (Diablo Canyon Power Plant Independent Spent Fuel Storage Installation), CLI-03-4, 57 NRC 273, 277 (2003)
because every license the Commission issues is subject to the possibility of additional requirements, moving forward with a licensing action does not foreclose implementation of new rules originating from a pending rulemaking petition; CLI-17-5, 85 NRC 93-94 n.38 (2017)
suspension of a licensing proceeding is a drastic action that will be granted where the Commission finds that moving forward with the proceeding presents an immediate threat to public health and safety, would be an obstacle to fair and efficient rulemaking, or would prevent implementation of the contemplated policy or rule change; CLI-17-5, 85 NRC 93 (2017)

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Powertech (USA), Inc. (Dewey-Burdock In Situ Uranium Recovery Facility), CLI-16-20, 84 NRC 219 (2016)
although a renewed license has been issued, if the board reopens the adjudication and rules in petitioner's favor on the new contention, it could still grant effective relief by directing NRC Staff to correct the deficiency in the SAMA analysis; LBP-17-1, 85 NRC 9 n.32 (2017)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 138 (2010)
petitioner must make a fresh demonstration of standing if its circumstances have changed since it last demonstrated standing; LBP-17-2, 85 NRC 19, 20 n.7 (2017)

PPL Bell Bend, LLC (Bell Bend Nuclear Power Plant), CLI-10-7, 71 NRC 133, 139 (2010)
petitioner bears the burden to provide facts sufficient to establish standing; LBP-17-4, 85 NRC 238 (2017)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 323 (1999)
to establish representational standing, petitioner must show that at least one member would otherwise have standing to sue in his or her own right, the interests that the organization seeks to protect are germane to its purpose, and neither the claim asserted nor the relief requested requires an individual member to participate in the organization's lawsuit; LBP-17-2, 85 NRC 20 (2017)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-99-10, 49 NRC 318, 325 (1999)
failure to satisfy any of the requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi) is sufficient to render a contention inadmissible; LBP-17-4, 85 NRC 244 (2017)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 350 n.18 (2005)
if the burden of satisfying the reopening requirements were not deliberately heavy, there would be little hope of completing administrative proceedings if each newly arising allegation required an agency to reopen its hearings; LBP-17-1, 85 NRC 7 n.23 (2017)

Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 28 (2006)
standard is provided for when the Staff must supplement an environmental impact statement to account for new and significant information; CLI-17-8, 85 NRC 184 n.167 (2017)

Progress Energy Carolinas, Inc. (Shearon Harris Nuclear Power Plant, Units 2 and 3), CLI-10-9, 71 NRC 245, 265 (2010)
Commission need not address issues that have not been included in an appeal; CLI-17-2, 85 NRC 39 n.35 (2017)

Public Service Co. of Indiana (Marble Hill Nuclear Generating Station, Units 1 and 2), CLI-80-10, 11 NRC 438, 441 (1980)
NRC's longstanding policy is to encourage licensees to consent to, rather than contest, enforcement actions; CLI-17-6, 85 NRC 105-06 & n.52 (2017)

Public Service Co. of New Hampshire (Seabrook Station, Units 1 and 2), CLI-90-10, 32 NRC 218, 221 (1990)
burden of satisfying the reopening requirements is a heavy one, and proponents bear the burden of meeting all 10 C.F.R. 2.326(a)-(b) requirements; LBP-17-1, 85 NRC 7 (2017)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 72 (1994)
alleged injury must not be conjectural or hypothetical; LBP-17-4, 85 NRC 237 (2017)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site), CLI-94-12, 40 NRC 64, 75 (1994)
proximity presumption allows petitioner having frequent contacts within 50 miles of a nuclear power reactor to establish standing without the need to make an individualized showing of injury, causation, and redressability; LBP-17-4, 85 NRC 237-38 (2017)

Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site Decontamination and Decommission Funding), CLI-97-13, 46 NRC 195, 207 (1997)
extent of NRC's discretion when the agency decides whether to initiate enforcement action is discussed; CLI-17-6, 85 NRC 105 n.48 (2017)

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Sequoyah Fuels Corp. and General Atomics (Gore, Oklahoma Site Decontamination and Decommission Funding), CLI-97-13, 46 NRC 195, 220 (1997)
insistence on strict regulatory compliance in all cases would rule out agency use of exemptions and enforcement discretion to relax rules in particular circumstances, a position at odds with maintaining regulatory flexibility and with NRC rules and practice; CLI-17-6, 85 NRC 105 n.49 (2017)

Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 13 (2001)
to establish traditional standing in a materials license proceeding, petitioner must allege an actual or threatened, concrete and particularized injury that is fairly traceable to the challenged action, falls among the general interests protected by applicable statutes, and is likely to be redressed by a favorable decision; LBP-17-4, 85 NRC 237, 243 (2017)

Sequoyah Fuels Corp. (Gore, Oklahoma Site Decommissioning), CLI-01-2, 53 NRC 9, 14 (2001)
intervention petitioner must show that its actual or threatened injuries can be cured by some action of the tribunal; LBP-17-4, 85 NRC 237 (2017)

Shell Oil Co. v. EPA, 950 F.2d 741, 747 (D.C. Cir. 1991)
difference between a proposed and final rule will not invalidate the notice as long as the final rule is a logical outgrowth of the one proposed; CLI-17-8, 85 NRC 192 (2017)
"logical outgrowths" are generally considered to determine whether an agency provided sufficient notice of a proposed rule; CLI-17-8, 85 NRC 192 (2017)

Sierra Club v. Froehlke, 816 F.2d 205, 210 (5th Cir. 1987)
NRC Staff must supplement an environmental impact statement if new issues paint a seriously different picture of the environmental impacts from those set forth in the final SEIS; CLI-17-8, 85 NRC 184 (2017)

South Carolina Electric & Gas Co. (Virgil C. Summer Nuclear Station, Units 2 and 3), CLI-10-1, 71 NRC 1, 6 (2010)
pro se litigants are expected to comply with NRC procedural rules; LBP-17-2, 85 NRC 24 n.10 (2017)

South Texas Project Nuclear Operating Co. (South Texas Project, Units 3 and 4), CLI-10-24, 72 NRC 451, 461 (2010)
Commission considers board's decision on sensitive unclassified non-safeguards information access request under a de novo standard; CLI-17-4, 85 NRC 66-67 (2017)

Southern Nuclear Operating Co. (Early Site Permit for Vogtle ESP Site), LBP-07-3, 65 NRC 237, 254 (2007)
subject matter of the contention must impact the grant or denial of a pending license application; LBP-17-4, 85 NRC 247 (2017)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), CLI-11-8, 74 NRC 214, 218 n.8 (2011)
contention based on new information is considered to be timely if it is filed within 30 days of the new information's availability; LBP-17-1, 85 NRC 8 (2017)

Southern Nuclear Operating Co. (Vogtle Electric Generating Plant, Units 3 and 4), CLI-12-2, 75 NRC 63, 84 (2012)
exemption removing certain requirements pertaining to material control and accounting for special nuclear materials, such that the same requirements apply to both Part 52 and Part 50 licensees, is discussed; CLI-17-8, 85 NRC 174 (2017)

Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-4, 37 NRC 156, 162-63 (1993)
petitioner must make a fresh demonstration of standing if its circumstances have changed since it last demonstrated standing; LBP-17-2, 85 NRC 19 (2017)

Texas Utilities Electric Co. (Comanche Peak Steam Electric Station, Unit 2), CLI-93-10, 37 NRC 192, 200 (1993)
case is dismissed as moot when effective relief cannot be granted because of subsequent events; LBP-17-1, 85 NRC 9 n.32 (2017)

Transnuclear, Inc. (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 5 (1994)
merely asserting an institutional interest in providing information to the public is insufficient for showing an affected interest; CLI-17-3, 85 NRC 49 n.15 (2017)

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Transnuclear, Inc. (Export of 93.15% Enriched Uranium), CLI-94-1, 39 NRC 1, 7-8 (1994)
U.S. government agencies must act in a manner that enhances the nation's reputation as a reliable supplier of nuclear materials to nations that adhere to U.S. nonproliferation standards by acting on export license applications in a timely fashion; CLI-17-3, 85 NRC 50 n.27 (2017)

Transnuclear, Inc. (Export of 93.3% Enriched Uranium), CLI-00-16, 52 NRC 68, 72 (2000)
intervention petitioner must show how a hearing on an export license application would bring new information to light; CLI-17-3, 85 NRC 49 n.18 (2017)
merely asserting a generalized interest in minimizing the danger from proliferation is insufficient to show an affected interest in an export proceeding; CLI-17-3, 85 NRC 49 n.16 (2017)

U.S. Army Installation Command (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), CLI-10-20, 72 NRC 185, 192 (2010)
pro se litigants are held to less rigid pleading standards so that parties with a clear but imperfectly stated interest in the proceedings are not excluded; LBP-17-2, 85 NRC 20 n.8 (2017); LBP-17-4, 85 NRC 238 (2017)

U.S. Army Installation Command (Schofield Barracks, Oahu, Hawaii, and Pohakuloa Training Area, Island of Hawaii, Hawaii), LBP-10-4, 71 NRC 216, 229 *aff'd,* CLI-10-20, 72 NRC 185 (2010)
it is generally sufficient if petitioner provides plausible factual allegations that satisfy each element of standing; LBP-17-4, 85 NRC 238 (2017)

U.S. Department of Energy (Export of 93.20% Enriched Uranium), CLI-16-15, 84 NRC 53, 56 (2016)
public participation in nuclear export licensing proceedings is allowed if such participation will be in the public interest and will assist the Commission in making the statutory determinations required by the Atomic Energy Act; CLI-17-3, 85 NRC 48 (2017)

U.S. Department of Energy (Export of 93.20% Enriched Uranium), CLI-16-15, 84 NRC 53, 58 (2016)
intervention petitioner must show how a hearing on an export license application would bring new information to light; CLI-17-3, 85 NRC 49 n.18 (2017)

U.S. Department of Energy (Export of 93.20% Enriched Uranium), CLI-16-15, 84 NRC 53, 62 (2016)
DOE and its European partners are fully committed to conversion and reducing HEU use in Europe; CLI-17-3, 85 NRC 55 (2017)

U.S. Department of Energy (Export of 93.20% Enriched Uranium), CLI-16-15, 84 NRC 53, 63 (2016)
export licenses for targets for medical isotope production tend to be for only a year, while export licenses for research reactor fuel usually cover a multiyear period; CLI-17-3, 85 NRC 57 (2017)

U.S. Department of Energy (Plutonium Export License), CLI-04-17, 59 NRC 357, 367 (2004)
persons without an affected interest in an export license are not as likely as persons with an affected interest to contribute to Commission decision making, show that a hearing would be in the public interest, and assist in making the statutory determinations; CLI-17-3, 85 NRC 48 n.10 (2017)

U.S. Department of Energy (Plutonium Export License), CLI-04-17, 59 NRC 357, 369 (2004)
intervention petitioner must show how a hearing on an export license application would bring new information to light; CLI-17-3, 85 NRC 49 n.18 (2017)

U.S. Department of Energy (Plutonium Export License), CLI-04-17, 59 NRC 357, 374 (2004)
NRC accords significant weight to the Executive Branch's conclusion on physical security measures of recipients of nuclear exports; CLI-17-3, 85 NRC 57 (2017)
NRC generally need not look beyond the nonproliferation safeguards in determining whether the common defense and security standard is met; CLI-17-3, 85 NRC 56 (2017)

U.S. Department of Energy (Plutonium Export License), CLI-04-17, 59 NRC 357, 376 (2004)
when determining whether unusual circumstances exist with respect to a proposed export, NRC gives great weight to the Executive Branch's judgments; CLI-17-3, 85 NRC 56 (2017)

Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 158 (2011)
suspension of a licensing proceeding is a drastic action that will be granted where the Commission finds that moving forward with the proceeding presents an immediate threat to public health and safety, would be an obstacle to fair and efficient rulemaking or would prevent implementation of the contemplated policy or rule change; CLI-17-5, 85 NRC 93 (2017)

Union Electric Co. (Callaway Plant, Unit 2), CLI-11-5, 74 NRC 141, 173, 175-76 (2011)
request for a safety analysis of the Fukushima accident based on the agency's plans for a short-term and long-term lessons-learned review, was granted and portions of the petition relating to pending

certified design documents, including the ESBWR amendment, were referred to NRC Staff as comments on the design certification rulemakings; CLI-17-8, 85 NRC 169-70 (2017)

Union of Concerned Scientists v. NRC, 711 F.2d 370, 383 (D.C. Cir. 1983)
for purposes of notice and comment requirements under the Administrative Procedure Act, NRC statement of policy regarding its intent not to enforce a deadline is distinguished from an NRC action that actually amends licenses; CLI-17-6, 85 NRC 103 n.39 (2017)

USEC Inc. (American Centrifuge Plant), CLI-05-11, 61 NRC 309, 314 (2005)
proximity presumption allows petitioner having a significant property interest within 50 miles of a nuclear power reactor to establish standing without the need to make an individualized showing of injury, causation, and redressability; LBP-17-4, 85 NRC 237-38 (2017)

USEC Inc. (American Centrifuge Plant), CLI-06-9, 63 NRC 433, 437 (2006)
licensing board must reject a contention that does not meet all six pleading criteria; LBP-17-2, 85 NRC 22 (2017)

USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 456 (2006)
pro se petitioner is expected to learn NRC's adjudicatory process and show regard for procedural rules and standards; CLI-17-4, 85 NRC 68 (2017)

USEC Inc. (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 468 n.104 (2006)
claims raised for the first time on appeal are inappropriate; CLI-17-4, 85 NRC 73 n.69 (2017)

Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 554-55 (1978)
if the burden of satisfying the reopening requirements were not deliberately heavy, there would be little hope of completing administrative proceedings if each newly arising allegation required an agency to reopen its hearings; LBP-17-1, 85 NRC 7 n.23 (2017)

Virginia Electric and Power Co. (North Anna Power Station, Units 1 and 2), CLI-76-22, 4 NRC 480 (1976)
licensee failed to disclose in its license amendment request certain seismic information regarding the location of the power station; DD-17-3, 85 NRC 202 (2017)

Westinghouse Electric Corp. (Export to South Korea), CLI-80-30, 12 NRC 253, 261 (1980)
U.S. government agencies must act in a manner that enhances the nation's reputation as a reliable supplier of nuclear materials to nations that adhere to U.S. nonproliferation standards by acting on export license applications in a timely fashion; CLI-17-3, 85 NRC 50 n.27 (2017)

Westinghouse Electric Corp. (Nuclear Fuel Export License for Czech Republic — Temelin Nuclear Power Plants), CLI-94-7, 39 NRC 322, 334 (1994)
petitioner who has extensive knowledge of non-proliferation issues must still adequately identify how a hearing would generate new information and how that information relates to findings that the Commission must make; CLI-17-3, 85 NRC 50 n.26 (2017)

Wisconsin v. Weinberger, 745 F.2d 412, 421 (7th Cir. 1984)
NRC Staff must supplement an environmental impact statement if new issues paint a seriously different picture of the environmental impacts from those set forth in the final SEIS; CLI-17-8, 85 NRC 184 (2017)

Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 204 & n.7 (1998)
contentions must be limited to issues that are relevant to the pending application; LBP-17-4, 85 NRC 244 (2017)

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10 C.F.R. 2.4
"participant" is an individual or organization (including a governmental entity) that has petitioned to intervene in a proceeding or requested a hearing but that has not yet been granted party status by the board; LBP-17-1, 85 NRC 8 n.27 (2017); LBP-17-2, 85 NRC 19 (2017)
10 C.F.R. 2.101
NRC Staff performs an acceptance review to determine if a license amendment application is complete and acceptable for docketing; DD-17-3, 85 NRC 198 (2017)
10 C.F.R. 2.102
during review of an application, applicant may be required to supply additional information; DD-17-3, 85 NRC 199 (2017)
10 C.F.R. 2.103
NRC may deny an application if the deficiencies are such that the submittal and supplements fail to comply with the Atomic Energy Act or NRC regulations, as applicable; DD-17-3, 85 NRC 200 (2017)
10 C.F.R. 2.107
if NRC determines that a license amendment request does not satisfy NRC safety regulations and warrants a denial, NRC Staff will complete the necessary internal reviews, contact the licensee to discuss the determination to deny the application, and offer the licensee the opportunity to withdraw the application; DD-17-3, 85 NRC 200 (2017)
10 C.F.R. 2.108
NRC may deny an application if a licensee or applicant fails to respond to a request for additional information within 30 days from the date of the request or within such other specified time; DD-17-3, 85 NRC 200 (2017)
10 C.F.R. 2.109(b)
reactor units may continue to operate pending adjudication of operating license renewal; LBP-17-3, 85 NRC 78 (2017)
10 C.F.R. 2.206
any person may file a request to institute a proceeding pursuant to section 2.202 to modify, suspend, or revoke a license, or for any other action as may be proper; CLI-17-7, 85 NRC 118 (2017)
avenue for redress of violations of health and safety regulations is a petition for enforcement action; CLI-17-4, 85 NRC 70 (2017)
licensee's ongoing compliance with NRC emergency planning requirements may be challenged by a request for action; CLI-17-7, 85 NRC 118 (2017)
proper method for seeking a license modification for safety reasons is to file a petition for enforcement rather than requesting an adjudicatory hearing; CLI-17-6, 85 NRC 102 (2017)
request for enforcement action on degradation of reactor vessel baffle-former bolts is denied; DD-17-1, 85 NRC 120-35 (2017)
request for immediate suspension of plant operations because of concerns about the plant's operational safety and its ability to safely shut down in the event of an earthquake caused by nearby faults is denied; DD-17-2, 85 NRC 136-55 (2017)
request that NRC issue a demand for information requiring licensee to provide NRC with a written explanation as to why its license amendment request failed to include all the accurate information needed by the NRC Staff to complete its review is denied; DD-17-3, 85 NRC 195-211 (2017)

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10 C.F.R. 2.206(b)
director of the NRC office with responsibility for the subject matter shall either institute the requested proceeding to modify, suspend, or revoke a license or advise the requester in writing that no proceeding will be instituted, in whole or in part, with respect to the request and the reason for the decision; DD-17-2, 85 NRC 138 (2017); DD-17-3, 85 NRC 198 (2017)

10 C.F.R. 2.209(f)(1)(vi)
contention that did not assert that the modeling in the license amendment application was not performed in accordance with NRC rules, or point to any other error in the application, failed to raise a genuine dispute with the application; CLI-17-5, 85 NRC 91 (2017)

10 C.F.R. 2.307(a)
time limits for submission of intervention petitions may be extended by the Commission or presiding officer for good cause; CLI-17-10, 85 NRC 223 n.7 (2017)

10 C.F.R. 2.309(a)
to participate in an NRC licensing proceeding, in addition to demonstrating standing, petitioner must also proffer at least one timely and admissible contention; LBP-17-2, 85 NRC 21 (2017); LBP-17-4, 85 NRC 236, 237 (2017)
to participate in NRC licensing proceedings, petitioner must establish standing; LBP-17-2, 85 NRC 19 (2017)

10 C.F.R. 2.309(c)
new, amended, or migrated contentions based on new and material information in NRC Staff's supplemental or final environmental impact statement or safety evaluation report with open items or final SER would be deemed timely if filed within 60 days of the date when the document containing the new and material information first becomes available; LBP-17-1, 85 NRC 8 n.26 (2017)
proposed new, amended, or migrated contention would be timely if filed within 30 days of the date when the new and material information on which it is based first became available; LBP-17-1, 85 NRC 8 n.26 (2017)

10 C.F.R. 2.309(c)(1)
contention alleging that FEIS inadequately considers factors that would prevent applicant from utilizing reclaimed wastewater from the county water and sewer department as a source of cooling water is inadmissible; LBP-17-2, 85 NRC 24 (2017)
contention alleging that the hydrological impact of injecting toxic chemicals and liquid radwaste-laden water from the reactors directly into the aquifer system was not fully evaluated in the EIS is inadmissible; LBP-17-2, 85 NRC 29 (2017)
contention that NEPA was not fully honored in spirit or letter by the NRC Staff who approved measures harmful to the environment is inadmissible; LBP-17-2, 85 NRC 30 (2017)
failure to satisfy either the timeliness standard or the contention admissibility standard requires that the board reject a proffered contention; LBP-17-2, 85 NRC 21 (2017)
petition to intervene that is filed after the deadline for proffering contentions based on the environmental report will not be entertained absent a determination by the licensing board that participant has demonstrated good cause; LBP-17-2, 85 NRC 24 (2017)
to demonstrate good cause, petitioner must show that information on which contention is based was not previously available and is materially different from previously available information and the filing has been timely submitted; LBP-17-2, 85 NRC 24 (2017)

10 C.F.R. 2.309(c)(1)(i)-(iii)
good cause for filing new or amended contentions after the deadline must be demonstrated by showing that information on which the filing is based was not previously available and is materially different from information previously available and the filing has been submitted in a timely fashion based on availability of the subsequent information; LBP-17-1, 85 NRC 7-8 (2017)

10 C.F.R. 2.309(c)(4)
motion to reopen that pertains to a new contention must also meet the timeliness requirements in 10 C.F.R. 2.309(c) and show that the new contention is admissible; CLI-17-7, 85 NRC 116 (2017)
new contention filed by a party to or participant in the proceeding must also satisfy the contention admissibility requirements of 10 C.F.R. 2.309(f); LBP-17-1, 85 NRC 8 (2017)

party or participant that has already satisfied the requirements for standing under paragraph (d) of this section in the same proceeding in which new or amended contentions are filed does not need to do so again; LBP-17-2, 85 NRC 19 (2017)
10 C.F.R. 2.309(d)
petitioners must meet the standing requirements in this regulation; LBP-17-4, 85 NRC 236, 237 (2017)
10 C.F.R. 2.309(f)
petition to intervene must set forth with particularity the contentions petitioner seeks to have litigated; CLI-17-4, 85 NRC 74 (2017)
10 C.F.R. 2.309(f)(1)
contention that NEPA was not fully honored in spirit or letter by NRC Staff who approved measures harmful to the environment is inadmissible; LBP-17-2, 85 NRC 30 (2017)
contentions must meet admissibility requirements in this regulation; LBP-17-4, 85 NRC 236 n.64, 237 (2017)
failure to satisfy either the timeliness standard or the contention admissibility standard requires that the board reject a proffered contention; LBP-17-2, 85 NRC 21 (2017)
level of support required for a motion to reopen is greater than that required for a contention under the general admissibility requirements of this regulation; CLI-17-7, 85 NRC 116 (2017)
petitioners may present contentions that raise issues of law; CLI-17-10, 85 NRC 223 (2017)
10 C.F.R. 2.309(f)(1)(i)
vague and ill-defined concerns about the insufficiency of computer modeling in a contention renders it inadmissible; LBP-17-2, 85 NRC 31 (2017)
10 C.F.R. 2.309(f)(1)(i)-(vi)
admissible contention must meet six pleading requirements; CLI-17-4, 85 NRC 74 (2017); LBP-17-4, 85 NRC 243-44 (2017)
10 C.F.R. 2.309(f)(1)(iii)
contention suggesting that NRC Staff exhibited improper bias in favor of nuclear energy in reviewing alternative sources of energy is inadmissible because it is outside the scope of the proceeding; LBP-17-2, 85 NRC 31 n.20 (2017)
contention that failed to explain how proposed hydrogen igniters could cause a flame to blow back into the containment and cause an explosion or why that risk would be unique to the two proposed igniters is inadmissible; CLI-17-2, 85 NRC 39 (2017)
10 C.F.R. 2.309(f)(1)(iii)-(iv)
admissible contention must fall within the scope of the proceeding and be material to the findings that NRC must make; CLI-17-4, 85 NRC 74 (2017)
contentions are outside the narrow scope of the proceeding or not material to the findings NRC Staff must make because they challenge matters already resolved in a prior licensing action; LBP-17-4, 85 NRC 245 (2017)
10 C.F.R. 2.309(f)(1)(v)
contention claiming that computer modeling for the FEIS must be supplemented with additional field research or studies is unsupported by fact or expert opinion, which renders the contention inadmissible; LBP-17-2, 85 NRC 31 (2017)
contention suggesting that NRC Staff exhibited improper bias in favor of nuclear energy in reviewing alternative sources of energy is inadmissible because it is unsupported by fact or expert opinion; LBP-17-2, 85 NRC 31 n.20 (2017)
failure to provide supporting information mandates rejection of a contention; LBP-17-2, 85 NRC 25 (2017)
10 C.F.R. 2.309(f)(1)(vi)
contention suggesting that NRC Staff exhibited improper bias in favor of nuclear energy in reviewing alternative sources of energy is inadmissible because it fails to demonstrate a genuine dispute with the FEIS; LBP-17-2, 85 NRC 31 n.20 (2017)
contention that failed to explain how proposed hydrogen igniters could cause a flame to blow back into the containment and cause an explosion or why that risk would be unique to the two proposed igniters is inadmissible; CLI-17-2, 85 NRC 39 (2017)

contention that fails to point to a specific deficiency in the FEIS beyond a conclusory assertion that its analysis of the effect of radial collector well pumping on the aquifer is uncertain and therefore deficient fails to raise a genuine dispute regarding a material issue of fact or law; LBP-17-2, 85 NRC 28 (2017)
failure to reference relevant portions of the FEIS or take issue with them renders contention inadmissible for failing to show a genuine dispute on a material issue of fact or law; LBP-17-2, 85 NRC 25 (2017)
information showing a genuine dispute with applicant on a material issue of law or fact must refer to specific portions of the application that petitioner disputes, with supporting reasons for each dispute, or, if the petitioner believes that an application fails altogether to contain information required by law, petitioner must identify each failure, and provide supporting reasons for the petitioner's belief; CLI-17-4, 85 NRC 74 (2017)

10 C.F.R. 2.309(f)(2)
when a COL application is docketed, petitioner seeking to raise contentions under the National Environmental Policy Act must base them on applicant's environmental report; LBP-17-2, 85 NRC 21 (2017)

10 C.F.R. 2.309(i)(2)
petitioners have a right to reply to NRC Staff and licensee's answers; LBP-17-4, 85 NRC 236 (2017)

10 C.F.R. 2.311(b)
appeals of contention admissibility rulings are due within 25 days following service of the board's order; CLI-17-2, 85 NRC 40-41 n.41 (2017)
appellant does not have the right to reply to answers, but the Commission may review a reply as a matter of discretion; CLI-17-5, 85 NRC 92 n.26 (2017)

10 C.F.R. 2.311(c)
petitioner whose hearing request has been wholly denied has a right to appeal; CLI-17-2, 85 NRC 40 (2017); CLI-17-5, 85 NRC 91 (2017)

10 C.F.R. 2.326
proponent of a motion to reopen bears a heavy burden; CLI-17-7, 85 NRC 115-16 (2017)
requirements that must be met for a motion to reopen to be granted are discussed; CLI-17-7, 85 NRC 116 (2017)
where petitioner has not met the reopening standards, the board need not rule on admissibility of the proposed new contention; CLI-17-7, 85 NRC 114-15 (2017)

10 C.F.R. 2.326(a)
where motion to reopen fails to demonstrate that a materially different result would have been likely had the proffered evidence been considered initially, there is no need for the board to decide whether the motion satisfies the other two criteria of this section; LBP-17-1, 85 NRC 8 (2017)

10 C.F.R. 2.326(a)(1)
discretionary exception is available if an untimely motion to reopen presents an exceptionally grave issue; LBP-17-1, 85 NRC 7 (2017)
motion to reopen must be timely, although there is a timeliness exception for motions that present an issue that is exceptionally grave; CLI-17-7, 85 NRC 116 (2017)

10 C.F.R. 2.326(a)(1)-(3)
motion to reopen 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-17-1, 85 NRC 7 (2017)

10 C.F.R. 2.326(a)(2)-(3)
motion to reopen must 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; CLI-17-7, 85 NRC 116 (2017)

10 C.F.R. 2.326(a)(3)
brief reference to environmental justice in its motion to reopen on disparity between potassium iodide tablet distribution in the U.S. and Canadian portions of the EPZ fails to raise an argument that would materially alter the SAMA analysis; LBP-17-1, 85 NRC 12 (2017)
reopening the record to admit evidence that potassium iodide tablet distribution in the EPZ reaches only 10-15% of the population would not lead to materially different cost-benefit conclusions for the severe accident mitigation alternatives candidates; LBP-17-1, 85 NRC 10-11 (2017)

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10 C.F.R. 2.326(b)
affidavits accompanying a motion to reopen must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; LBP-17-1, 85 NRC 7 (2017)
evidence contained in affidavits accompanying a motion to reopen must meet the evidence admissibility standards in 10 C.F.R. 2.337; CLI-17-7, 85 NRC 116 (2017)
motion to reopen based on purportedly new factual information requires an affidavit providing the factual and/or technical basis for movant's claim; LBP-17-1, 85 NRC 7, 11 (2017); CLI-17-7, 85 NRC 116 (2017)
10 C.F.R. 2.326(d)
challenges to NRC regulations in NRC adjudications are prohibited absent a waiver; CLI-17-4, 85 NRC 70 n.52 (2017)
motion to reopen that pertains to a new contention must also meet the timeliness requirements in 10 C.F.R. 2.309(c) and show that the new contention is admissible; CLI-17-7, 85 NRC 116 (2017)
motion to reopen that relates to a contention not previously in controversy among the parties must also satisfy the requirements for new or amended contentions filed after the deadline; LBP-17-1, 85 NRC 7 (2017)
10 C.F.R. 2.335
challenges to NRC regulations, including a design certification, in adjudicatory proceedings are prohibited in the absence of a waiver of that regulation; CLI-17-2, 85 NRC 38 (2017)
10 C.F.R. 2.335(a)
even if a contention is timely filed, it would be inadmissible if it sought to litigate the subject of an ongoing rulemaking; CLI-17-8, 85 NRC 170 n.70 (2017)
10 C.F.R. 2.335(b)
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 unless the Commission grants a petition for waiver of the rule in the particular proceeding; CLI-17-5, 85 NRC 90-91 & n.18 (2017)
sole ground for waiver of a regulation is that special circumstances with respect to the subject matter of a particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule was adopted; CLI-17-5, 85 NRC 92 (2017)
10 C.F.R. 2.337(a)
evidence contained in affidavits accompanying a motion to reopen must be relevant, material, and reliable; CLI-17-7, 85 NRC 116 (2017)
10 C.F.R. 2.337(b)
affidavits accompanying a motion to reopen must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; CLI-17-7, 85 NRC 116 (2017)
10 C.F.R. 2.340(a)
where the board does not see any adverse safety consequences of granting intervenors' request for dismissal of the remaining contentions, and sees no further role for the board in the proceeding, it grants intervenors' motion, dismisses remaining contentions without prejudice, and terminates the proceeding; LBP-17-3, 85 NRC 85 (2017)
10 C.F.R. 2.340(f) (2007)
presiding officers' decisions concerning construction permits (including ESPs, which are partial construction permits) are not effective until the Commission itself analyzes both the record and the presiding officer's decision and determines whether a stay of the permit is warranted; CLI-17-8, 85 NRC 165 n.33 (2017)
10 C.F.R. 2.340(f) (2008)
presiding officer's decision regarding an early site permit (among other actions) is immediately effective unless the presiding officer finds that good cause has been shown by a party why the initial decision should not become immediately effective; CLI-17-8, 85 NRC 165 n.33 (2017)

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10 C.F.R. 2.341(b)(4)(i)-(v)
petition for review of a licensing board decision may be granted at the Commission's discretion, giving due weight to the existence of a substantial question with respect to the considerations of this regulation; CLI-17-7, 85 NRC 115 (2017)

10 C.F.R. 2.390(a)(4)
trade secrets and commercial or financial information obtained from a person and privileged or confidential in a license transfer application may be withheld from public disclosure; CLI-17-4, 85 NRC 62 (2017)

10 C.F.R. 2.390(b)(2)
where license transfer applicant has not agreed to release of sensitive information, Commission role is to balance applicant's interest in protecting proprietary information with the petitioner's legitimate interest in obtaining information that is necessary to allow for meaningful participation in the adjudicatory proceeding; CLI-17-4, 85 NRC 67 (2017)

10 C.F.R. 2.390(b)(3)(i)-(ii)
trade secrets and commercial or financial information obtained from a person and privileged or confidential in a license transfer application may be withheld from public disclosure; CLI-17-4, 85 NRC 62 n.11 (2017)

10 C.F.R. 2.390(b)(4)
financial information determined to be a trade secret or confidential or privileged is withheld from public release based on an applicant's request; CLI-17-4, 85 NRC 67 (2017)

10 C.F.R. 2.802(e)
board lacked authority to issue a stay; CLI-17-5, 85 NRC 91 (2017)
petitioner may request that the Commission suspend all or any part of any licensing proceeding to which petitioner is a participant pending disposition of a petition for rulemaking; CLI-17-5, 85 NRC 93 (2017)

10 C.F.R. 2.1300
provisions of 10 C.F.R. Part 2, Subpart M, together with the generally applicable intervention provisions in 10 C.F.R. Part 2, Subpart C, govern adjudicatory proceedings on a license transfer application; CLI-17-4, 85 NRC 74 (2017)

10 C.F.R. 2.1316
consistent with its safety evaluation, NRC Staff is expected to promptly issue approval or denial of license transfer requests, even if an adjudicatory proceeding is pending; CLI-17-4, 85 NRC 61 n.5 (2017)

10 C.F.R. 2.1327
issues that are not pursued in request for a stay of the effectiveness of NRC Staff action on a license transfer application, to the extent that they might be understood to be pending, are denied as moot; CLI-17-4, 85 NRC 68 n.43 (2017)

10 C.F.R. 20.1402
decommissioning screening values are surface soil concentrations of individual radionuclides that would be deemed in compliance with the 25 mrem/y (0.25 mSv/y) unrestricted release dose limit; LBP-17-4, 85 NRC 232 n.19 (2017)

10 C.F.R. Part 21
pressurized-water reactor owners were asked to provide an evaluation and recommendations in response to recent baffle-former bolt degradation; DD-17-1, 85 NRC 127 n.1 (2017)

10 C.F.R. 40.4
depleted uranium is source material uranium in which uranium-235 is less than 0.711% by weight of the total uranium present; LBP-17-4, 85 NRC 230 n.2 (2017)

10 C.F.R. 50.5
"deliberate misconduct," addresses deliberately providing information to NRC or a licensee that the person submitting the information knows to be materially incomplete or inaccurate; DD-17-3, 85 NRC 202 (2017)

10 C.F.R. 50.9
history of regulation is discussed; DD-17-3, 85 NRC 202-03 (2017)
information in a license amendment request must be complete and accurate; DD-17-3, 85 NRC 197 (2017)

licensee need not know that a statement is false at the time, an omission can constitute material false statement, and materiality is determined by whether information could influence NRC Staff in making a regulatory decision; DD-17-3, 85 NRC 202 (2017)
"material false statement" under this regulation encompasses information that is materially incomplete or inaccurate; DD-17-3, 85 NRC 202 (2017)
NRC has seldom issued violations for information submitted in the licensing process; DD-17-3, 85 NRC 203 (2017)
NRC Staff has explicitly contemplated the implications of this rule on requests for additional information in the licensing process; DD-17-3, 85 NRC 202 (2017)
NRC Staff requests for additional information are not necessarily indicative of a violation; DD-17-3, 85 NRC 203 (2017)
whether a particular issue constitutes a violation of this regulation is determined by the facts and circumstances in a particular case; DD-17-3, 85 NRC 203-04 (2017)
10 C.F.R. 50.10(e)(1) (2006)
early site permit allows permit holder to perform site preparation activities pursuant to the regulations in effect when the ESP application was submitted; CLI-17-8, 85 NRC 183 n.161 (2017)
10 C.F.R. 50.12
change to Tier 1 information in a proposed departure from a certified design requires an associated exemption from NRC regulations; CLI-17-8, 85 NRC 179 (2017)
10 C.F.R. 50.12(a)
NRC Staff may approve an exemption where it finds that the exemption is authorized by law, will not present undue risk to the public health and safety, is consistent with the common defense and security, and special circumstances exist that warrant the exemption; CLI-17-8, 85 NRC 174 (2017)
10 C.F.R. 50.12(a)(1)
request for exemption regarding ground motion response spectra must meet regulatory requirements for approval of the exemption; CLI-17-8, 85 NRC 179 (2017)
10 C.F.R. 50.30(b)
information in license amendment requests is to be submitted under oath and affirmation; DD-17-3, 85 NRC 199 (2017)
10 C.F.R. 50.33(f)(2)
estimates of operating costs for each of 5 years is part of demonstration of reasonable assurance of financial qualifications to carry out license activities; CLI-17-4, 85 NRC 73 n.68 (2017)
10 C.F.R. 50.43(a)(3)
NRC Staff must notify federal, state, and local agencies about a combined license application; CLI-17-8, 85 NRC 186 (2017)
10 C.F.R. 50.44
certified AP1000 reactor design meets the requirements for a hydrogen control system; CLI-17-2, 85 NRC 35 (2017)
concentrations of combustible gas such as hydrogen must be limited to ensure containment integrity; CLI-17-2, 85 NRC 34 (2017)
during the AP1000 design certification process, locations of the hydrogen igniters and the location criteria, including the criterion that they be placed as close to the hydrogen source as feasible, were reviewed and found to meet regulatory requirements; CLI-17-2, 85 NRC 38 (2017)
10 C.F.R. 50.44(c)
reactor license applicants are not required to analyze sources of hydrogen other than that generated by a 100% fuel cladding-coolant reaction; CLI-17-2, 85 NRC 39 (2017)
specifications for limiting combustible gases in water-cooled reactors licensed after October 16, 2003, are provided; CLI-17-2, 85 NRC 35 n.5 (2017)
10 C.F.R. 50.44(c)(5)
combined license applicant must perform an analysis that demonstrates containment structural integrity before adding two new igniters to its hydrogen control system; CLI-17-2, 85 NRC 42 (2017)
license applicant must perform an analysis that demonstrates containment structural integrity including in an accident that releases hydrogen generated by a 100% fuel clad-coolant reaction accompanied by burning; CLI-17-2, 85 NRC 35 (2017)

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10 C.F.R. 50.46(b)
specific performance criteria are set for emergency core cooling systems of reactors that limit the calculated peak cladding temperature, the extent of cladding oxidation, and the amount of hydrogen generation following a loss-of-coolant accident; CLI-17-5, 85 NRC 88-89 (2017)

10 C.F.R. 50.47(a)(1)(i)
emergency planning issues are outside the scope of an operating license renewal proceeding; CLI-17-7, 85 NRC 118 (2017); LBP-17-1, 85 NRC 11 n.44 (2017)

10 C.F.R. 50.47(b)(10)
nuclear power reactors must have a range of protective actions planned in the case of plume exposure in the EPZ, including the prophylactic use of potassium iodide; LBP-17-1, 85 NRC 11 n.44 (2017)

10 C.F.R. 50.54(a)(4)
changes that reduce commitments made in a quality assurance program description must be submitted to NRC and receive NRC approval prior to implementation; CLI-17-4, 85 NRC 70 n.56 (2017)

10 C.F.R. 50.54(f)
NRC Staff issued a request for information following the Fukushima accident, to confirm the appropriateness of the hazards assumed for U.S. plants and each plant's ability to protect against them; DD-17-2, 85 NRC 143 (2017)

10 C.F.R. 50.72
event involving an unanalyzed condition due to degraded reactor vessel baffle-former bolts is reportable; DD-17-1, 85 NRC 124 (2017)

10 C.F.R. 50.73(a)(2)(ii)(B)
event involving an unanalyzed condition due to degraded reactor vessel baffle-former bolts is reportable; DD-17-1, 85 NRC 121 (2017)

10 C.F.R. 50.75
requirements for showing reasonable assurance that funds will be available for the decommissioning process are described; CLI-17-4, 85 NRC 73 n.68 (2017)

10 C.F.R. 50.75(e)(1)(i)
financial assurance for decommissioning funding may be accomplished through the NRC's prepayment method; CLI-17-4, 85 NRC 69 (2017)

10 C.F.R. 50.80(a)
prior written NRC consent is required for a direct or indirect license transfer; CLI-17-4, 85 NRC 61 (2017)

10 C.F.R. 50.90-50.92
regulations governing license amendment proceedings that aim to ensure compliance with AEA requirements are set forth; CLI-17-6, 85 NRC 106 n.54 (2017)

10 C.F.R. 50.92
purpose of the license amendment review process is for NRC Staff to review proposed modifications to the current licensing and design bases of nuclear power plants to ensure that public health and safety are maintained; DD-17-3, 85 NRC 198 (2017)

10 C.F.R. Part 50, Appendix A, GDC 2
design bases for nuclear power plants are either developed in accordance with, or to meet the intent of, these regulations; DD-17-2, 85 NRC 143-44, 151 (2017)
fuel assembly and control rod blade mechanical designs must be capable of withstanding the effects of natural phenomena; CLI-17-8, 85 NRC 180 (2017)
proposed departure from the certified design for structures housing regulatory treatment of non-safety systems equipment for hurricane-wind-generated missiles is granted; CLI-17-8, 85 NRC 176 n.112 (2017)
safety-related structures at nuclear power plants must be able to withstand the most severe earthquakes historically reported for the site and the area surrounding the site; CLI-17-8, 85 NRC 178 (2017)

10 C.F.R. Part 50, Appendix A, GDC 4
proposed departure from the certified design for structures housing regulatory treatment of non-safety systems equipment for hurricane-wind-generated missiles is granted; CLI-17-8, 85 NRC 176 n.112 (2017)

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10 C.F.R. Part 50, Appendix A, GDC 41
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concentrations of combustible gas such as hydrogen must be limited to ensure containment integrity; CLI-17-2, 85 NRC 34, 34 (2017)
10 C.F.R. Part 50, Appendix B, Criterion XVI
any changes to licensee's quality assurance commitments would need to be justified and would be inspectable by NRC inspectors; DD-17-1, 85 NRC 127-28 (2017)
10 C.F.R. Part 50, Appendix K, I.A.5
Baker-Just equation is required for use in emergency core cooling system evaluation models; CLI-17-5, 85 NRC 92 (2017)
rate of energy release, hydrogen generation, and cladding oxidation from the metal-water reaction shall be calculated using the Baker-Just equation; CLI-17-5, 85 NRC 89 (2017)
10 C.F.R. Part 50, Appendix S, IV(a)(1)(i)
soil-structure interaction input spectra must comply with minimum horizontal ground motion requirement in NRC regulations; CLI-17-8, 85 NRC 179 (2017)
10 C.F.R. 51.50(b)(1) and (c)(1)
NRC Staff must resolve its consideration of alternative sites at the ESP stage; CLI-17-8, 85 NRC 188 n.202 (2017)
10 C.F.R. 51.92
standard is provided for when the Staff must supplement an environmental impact statement to account for new and significant information; CLI-17-8, 85 NRC 184 (2017)
10 C.F.R. 51.107
mandatory hearing addresses whether NRC Staff's review of the application has been adequate to support the findings in this regulation that must be made for each combined license; CLI-17-1, 85 NRC 1-2 (2017)
10 C.F.R. 51.107(a)
determinations that the Commission must make on environmental matters in the mandatory combined license hearing are listed; CLI-17-8, 85 NRC 163-64 (2017)
in an uncontested proceeding, Commission considers whether review of the application by NRC Staff has been adequate to support the findings set forth in this regulation; CLI-17-8, 85 NRC 160, 190 (2017)
NRC Staff must weigh the unavoidable adverse environmental impacts and resource commitments (environmental costs of the project) against the project's benefits; CLI-17-8, 85 NRC 189 (2017)
10 C.F.R. Part 51, Appendix A, § 5
alternatives analysis is the heart of the environmental impact statement; CLI-17-8, 85 NRC 188 (2017)
10 C.F.R. 52.7
change to Tier 1 information in a proposed departure from a certified design requires an associated exemption from NRC regulations; CLI-17-8, 85 NRC 179 (2017)
NRC Staff may approve an exemption where it finds that the exemption is authorized by law, will not present undue risk to the public health and safety, is consistent with the common defense and security, and special circumstances exist that warrant the exemption; CLI-17-8, 85 NRC 174 (2017)
10 C.F.R. 52.17(a)(1)
rules applicable to early site permits in 10 C.F.R. Parts 51, 52, and 100 do not require specific design information, but this regulation lists what technical information must be included in the application; CLI-17-8, 85 NRC 161 n.8 (2017)
10 C.F.R. 52.47
NRC has never used "logical outgrowths" for interpreting the meaning of its regulations in the adjudicatory context; CLI-17-8, 85 NRC 192 (2017)
10 C.F.R. 52.47(a)(23) and (27)
requirements for Severe Accident Management Guidelines are contrary to NRC policy; CLI-17-8, 85 NRC 191, 192 (2017)
10 C.F.R. 52.63(a)(1)
because proposed igniters conform to previously approved criteria, requiring combined license applicant to perform additional analyses would amount to imposing a new requirement on the certified design; CLI-17-2, 85 NRC 38 (2017)

new requirements cannot be imposed on a certified design absent special circumstances; CLI-17-2, 85 NRC 38 n.26 (2017)
10 C.F.R. 52.63(b)(1)
change to Tier 1 information in a proposed departure from a certified design requires an associated exemption from NRC regulations; CLI-17-8, 85 NRC 179 (2017)
NRC Staff may approve an exemption where it finds that the exemption is authorized by law, will not present undue risk to the public health and safety, is consistent with the common defense and security, and special circumstances exist that warrant the exemption; CLI-17-8, 85 NRC 174 (2017)
NRC Staff must determine that the special circumstances warranting an exemption from regulations outweigh any decrease in safety resulting from the reduction in standardization that may result from the exemption; CLI-17-8, 85 NRC 174 (2017)
10 C.F.R. 52.83(a)
where an application for a combined license references a certified design, the scope of matters resolved for the subsequent combined license is governed by the relevant provisions addressing finality including 10 C.F.R. 52.39, 52.63, 52.98, 52.145, and 52.171; CLI-17-2, 85 NRC 41 n.44 (2017)
10 C.F.R. 52.93
requirements that combined license applicants must meet when seeking an exemption from NRC regulations are found in this regulation; CLI-17-8, 85 NRC 174 (2017)
10 C.F.R. 52.97
mandatory hearing addresses whether NRC Staff's review of the application has been adequate to support the findings in this regulation that must be made for each combined license; CLI-17-1, 85 NRC 1-2 (2017)
10 C.F.R. 52.97(a)
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in an uncontested proceeding, Commission considers whether review of the application by NRC Staff has been adequate to support the findings set forth in this regulation; CLI-17-8, 85 NRC 160, 190 (2017)
10 C.F.R. Part 52, Appendix E
combined license application may reference a certified reactor design; CLI-17-8, 85 NRC 160 (2017)
10 C.F.R. Part 52, Appendix E, III.B
change to Tier 1 information in a proposed departure from a certified design requires an associated exemption from NRC regulations; CLI-17-8, 85 NRC 179 (2017)
10 C.F.R. Part 52, Appendix E, VIII.A.4
departures from a certified design that involve a change to the design as described in the rule certifying the design require an exemption from NRC regulations; CLI-17-8, 85 NRC 174 (2017)
10 C.F.R. Part 52, Appendix E, VIII.B.5.a
where a combined license applicant references a certified design, changes to the design may be made in the combined license if proposed as a departure from the certified design and some departures may be made without prior Commission approval; CLI-17-8, 85 NRC 173-74 (2017)
10 C.F.R. 54.31(c)
license renewal may be set aside or appropriately conditioned even after it has been issued, upon subsequent administrative or judicial review; CLI-17-7, 85 NRC 114 n.13 (2017)
10 C.F.R. 72.50(a)
prior written NRC consent is required for a direct or indirect license transfer; CLI-17-4, 85 NRC 61 (2017)
10 C.F.R. 100.10(c)(2), 100.20(c)(2), and 100.21(d)
proposed departure from the certified design for structures housing regulatory treatment of non-safety systems equipment for hurricane-wind-generated missiles is granted; CLI-17-8, 85 NRC 176 (2017)
10 C.F.R. 100.23
although requirements in 10 C.F.R. Part 100, Appendix A are fundamentally deterministic, the NRC process for determining the seismic design-basis ground motions for new reactor applications on or after January 10, 1997, uses a probabilistic analysis; DD-17-2, 85 NRC 143-44 (2017)
10 C.F.R. 100.23(d)
seismic hazard reevaluation uses a probabilistic analysis as specified in this regulation; DD-17-2, 85 NRC 148 (2017)

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10 C.F.R. Part 100, Appendix A
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licensing bases concepts of the operating basis earthquake and safe shutdown earthquake are defined; DD-17-2, 85 NRC 151 (2017)
10 C.F.R. 110.41
NRC must submit high-enriched uranium export license applications to the Executive Branch for review; CLI-17-3, 85 NRC 47 (2017)
10 C.F.R. 110.42(a)(1)-(5)
five non-proliferation criteria govern exports of high-enriched uranium; CLI-17-3, 85 NRC 51-52 n.33 (2017)
10 C.F.R. 110.42(a)(6)
export to a non-nuclear weapon state must satisfy an additional non-proliferation criterion; CLI-17-3, 85 NRC 51 (2017)
non-nuclear-weapon state recipients of HEU exports must have full-scope International Atomic Energy Agency safeguards with respect to all peaceful nuclear activities carried out in that state; CLI-17-3, 85 NRC 52 (2017)
10 C.F.R. 110.42(a)(7)
Commission must find that any export of more than 0.003 effective kilograms of special nuclear material would be under the terms of the U.S.-Euratom Agreement for Cooperation in the Peaceful Uses of Nuclear Energy; CLI-17-3, 85 NRC 51 n.32 (2017)
10 C.F.R. 110.42(a)(8)
to issue a license, NRC must determine that the proposed export of HEU will not be inimical to the common defense and security of the United States; CLI-17-3, 85 NRC 51, 55 (2017)
10 C.F.R. 110.42(a)(9)
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to authorize an export of HEU, NRC must find that there is no alternative nuclear reactor fuel or target enriched in isotope 235 to a lesser percent than the proposed export, that can be used in the reactor; CLI-17-3, 85 NRC 52 (2017)
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10 C.F.R. 110.82(b)(4)
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10 C.F.R. 110.84(a)
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10 C.F.R. 110.84(b)
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National Environmental Policy Act, 102(2)(C), 42 U.S.C. § 4332(2)(C)(ii)-(v)
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contention that failed to explain how proposed hydrogen igniters could cause a flame to blow back into the containment and cause an explosion or why that risk would be unique to the two proposed igniters is inadmissible; CLI-17-2, 85 NRC 33 (2017)

contention that fails to point to a specific deficiency in the FEIS beyond a conclusory assertion that its analysis of the effect of radial collector well pumping on the aquifer is uncertain and therefore deficient fails to raise a genuine dispute regarding a material issue of fact or law; LBP-17-2, 85 NRC 14 (2017)

contention that NEPA was not fully honored in spirit or letter by NRC Staff who had approved measures harmful to the environment is inadmissible; LBP-17-2, 85 NRC 14 (2017)

contentions are not admissible unless they are within the scope of the proceeding for which the licensing board has been delegated jurisdiction; LBP-17-4, 85 NRC 225 (2017)

contentions are outside the narrow scope of the proceeding or not material to the findings NRC Staff must make because they challenge matters already resolved in a prior licensing action; LBP-17-4, 85 NRC 225 (2017)

contentions challenging the Continued Storage Rule are inadmissible; CLI-17-8, 85 NRC 157 (2017)

contentions must be limited to issues that are relevant to the pending application; LBP-17-4, 85 NRC 225 (2017)

contentions must focus on the subject matter identified in the hearing notice, the amendment application, and the Staff's environmental responsibilities relating to the application; LBP-17-4, 85 NRC 225 (2017)

contentions must meet the requirements in 10 C.F.R. 2.309(f)(1); LBP-17-4, 85 NRC 225 (2017)

contentions raising claims substantively identical to those raised by a pending rulemaking petition are barred because they are or are about to become the subject of general rulemaking; CLI-17-5, 85 NRC 87 (2017)

emergency planning issues are outside the scope of an operating license renewal proceeding; CLI-17-7, 85 NRC 111 (2017)

even if a contention is timely filed, it would be inadmissible if it sought to litigate the subject of an ongoing rulemaking; CLI-17-8, 85 NRC 157 (2017)

failure to provide supporting information mandates rejection of a contention; LBP-17-2, 85 NRC 14 (2017)

failure to reference relevant portions of the FEIS or take issue with them renders contention inadmissible for failing to show a genuine dispute on a material issue of fact or law; LBP-17-2, 85 NRC 14 (2017)

failure to satisfy any of the requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi) is sufficient to render a contention inadmissible; LBP-17-4, 85 NRC 225 (2017)

failure to satisfy either the timeliness standard or the contention admissibility standard requires that the board reject a contention; LBP-17-2, 85 NRC 14 (2017)

good cause for filing new or amended contentions after the deadline must be demonstrated by showing that information on which the filing is based was not previously available and is materially different from information previously available and the filing has been submitted in a timely fashion based on availability of the subsequent information; LBP-17-1, 85 NRC 3 (2017)

information showing a genuine dispute with applicant on a material issue of law or fact must refer to specific portions of the application that petitioner disputes, with supporting reasons for each dispute, or, if petitioner believes that an application fails altogether to contain information required by law, petitioner must identify each failure, and provide supporting reasons for petitioner's belief; CLI-17-4, 85 NRC 59 (2017)

level of support required for a motion to reopen is greater than that required for a contention under the general admissibility requirements; CLI-17-7, 85 NRC 111 (2017)

licensing board must reject a contention that does not meet all six criteria of 10 C.F.R. 2.309(f)(1); LBP-17-2, 85 NRC 14 (2017)

"material" issue is one in which resolution of the dispute would make a difference in the outcome of the licensing proceeding; LBP-17-4, 85 NRC 225 (2017)

merely asserting a generalized interest in minimizing the danger from proliferation is insufficient to show an affected interest in an export proceeding; CLI-17-3, 85 NRC 44 (2017)
motion to reopen that pertains to a new contention must also meet the timeliness requirements in 10 C.F.R. 2.309(c) and show that the new contention is admissible; CLI-17-7, 85 NRC 111 (2017)
motion to reopen that relates to a contention not previously in controversy among the parties must also satisfy the section 2.309(c) requirements in section 2.309(b) for new or amended contentions filed after the deadline; LBP-17-1, 85 NRC 3 (2017)
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 unless the Commission grants a petition for waiver of the rule in the particular proceeding; CLI-17-5, 85 NRC 87 (2017)
petition for rulemaking is a more appropriate avenue for resolving generic concerns about the Baker-Just equation than is a site-specific contention; CLI-17-5, 85 NRC 87 (2017)
pleading standard of 10 C.F.R. 2.309(f)(1) is strict by design; LBP-17-2, 85 NRC 14 (2017)
reply cannot expand the scope of the arguments set forth in the original hearing request; LBP-17-1, 85 NRC 3 (2017)
requirements for an admissible contention are provided in 10 C.F.R. 2.309(f)(1)(i)-(vi); CLI-17-4, 85 NRC 59 (2017)
scope of hearing on an enforcement order is limited to whether the order should be sustained in the form it was issued; CLI-17-6, 85 NRC 96 (2017)
sole ground for waiver of a regulation is that special circumstances with respect to the subject matter of a particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule was adopted; CLI-17-5, 85 NRC 87 (2017)
subject matter of the contention must impact the grant or denial of a pending license application; LBP-17-4, 85 NRC 225 (2017)
to demonstrate good cause for late filing, petitioner must show that information on which contention is based was not previously available and is materially different from previously available information and the filing has been timely submitted; LBP-17-2, 85 NRC 14 (2017)
to participate in an NRC licensing proceeding, in addition to demonstrating standing, petitioner must also proffer at least one timely and admissible contention; LBP-17-2, 85 NRC 14 (2017)
vague and ill-defined concerns about the insufficiency of computer modeling in a contention renders it inadmissible; LBP-17-2, 85 NRC 14 (2017)
when an issue is resolved generically, petitioner's remedy is through the rulemaking process rather than adjudication; CLI-17-2, 85 NRC 33 (2017)
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discretionary exception is available if an untimely motion to reopen presents an exceptionally grave issue; LBP-17-1, 85 NRC 3 (2017)
failure to satisfy either the timeliness standard or the contention admissibility standard requires that the board reject a proffered contention; LBP-17-2, 85 NRC 14 (2017)
good cause for filing new or amended contentions after the deadline must be demonstrated by showing that information on which the filing is based was not previously available and is materially different from information previously available and the filing has been submitted in a timely fashion based on availability of the subsequent information; LBP-17-1, 85 NRC 3 (2017)
motion to reopen that relates to a contention not previously in controversy among the parties must also satisfy the section 2.309(c) requirements for new or amended contentions filed after the deadline; LBP-17-1, 85 NRC 3 (2017)
party or participant that has already satisfied the requirements for standing under 10 C.F.R. 2.309(d) in the same proceeding in which new or amended contentions are filed does not need to do so again; LBP-17-2, 85 NRC 14 (2017)
proposed new, amended, or migrated contention would be timely if filed within 30 days of the date when the new and material information on which it is based first became available; LBP-17-1, 85 NRC 3 (2017)

to demonstrate good cause for late filing, petitioner must show that information on which contention is based was not previously available and is materially different from previously available information and the filing has been timely submitted; LBP-17-2, 85 NRC 14 (2017)
CONTINUED STORAGE RULE
Commission lifted suspension on final licensing decisions after approving a generic environmental impact statement and final Continued Storage Rule that addressed the issues in remand; CLI-17-8, 85 NRC 157 (2017)
Commission suspended issuance of final licensing decisions until the court's remand on temporary storage of radioactive waste was appropriately addressed and held any related contentions in abeyance until further order; CLI-17-8, 85 NRC 157 (2017)
rule codifies NRC's generic determinations regarding the pertinent environmental impacts associated with continued storage of spent nuclear fuel; LBP-17-3, 85 NRC 77 (2017)
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contention alleging that FEIS inadequately considers factors that would prevent applicant from utilizing reclaimed wastewater from the county water and sewer department as a source of cooling water is inadmissible; LBP-17-2, 85 NRC 14 (2017)
COOLING TOWERS
proposed departure from the certified design to revise the liquid waste management system to simplify the design and construction of the cooling tower blow-down line is discussed; CLI-17-8, 85 NRC 157 (2017)
COSTS
estimates of operating costs for each of 5 years is part of demonstration of reasonable assurance of financial qualifications to carry out license activities; CLI-17-4, 85 NRC 59 (2017)
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event involving an unanalyzed condition due to degraded reactor vessel baffle-former bolts is reportable; DD-17-1, 85 NRC 119 (2017)
request for enforcement action on degradation of reactor vessel baffle-former bolts is denied; DD-17-1, 85 NRC 119 (2017)
CURRENT LICENSING BASIS
emergency planning issues are addressed as part of the agency's continuing oversight of licensees; CLI-17-7, 85 NRC 111 (2017)
DEADLINES
appeals of contention admissibility rulings are due within 25 days following service of board order; CLI-17-2, 85 NRC 33 (2017)
for purposes of notice and comment requirements under the Administrative Procedure Act, NRC statement of policy regarding its intent not to enforce a deadline is distinguished from an NRC action that actually amends licenses; CLI-17-6, 85 NRC 96 (2017)
proposed new, amended, or migrated contention would be timely if filed within 30 days of the date when the new and material information on which it is based first became available; LBP-17-1, 85 NRC 3 (2017)
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See Licensing Board Decisions
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NRC may deny an application if the deficiencies are such that the submittal and supplements fail to comply with the Atomic Energy Act or NRC regulations, as applicable; DD-17-3, 85 NRC 195 (2017)
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"deliberate misconduct," addresses deliberately providing information to NRC or a licensee that the person submitting the information knows to be materially incomplete or inaccurate; DD-17-3, 85 NRC 195 (2017)
depleted uranium is source material uranium in which U-235 is less than 0.711% by weight of the total uranium present; LBP-17-4, 85 NRC 225 (2017)
licensing basis concepts of the operating basis earthquake and safe shutdown earthquake are defined in 10 C.F.R. Part 100, App. A; DD-17-2, 85 NRC 136 (2017)
"material false statement" under 10 C.F.R. 50.9 encompasses information that is materially incomplete or inaccurate; DD-17-3, 85 NRC 195 (2017)
"material" issue is one in which resolution of the dispute would make a difference in the outcome of the licensing proceeding; LBP-17-4, 85 NRC 225 (2017)
"participant" is an individual or organization (including a governmental entity) that has petitioned to intervene in a proceeding or requested a hearing but that has not yet been granted party status by the board; LBP-17-2, 85 NRC 14 (2017)
DELIBERATE MISCONDUCT
knowingly providing information to NRC or a licensee that the person submitting the information knows to be materially incomplete or inaccurate is deliberate misconduct; DD-17-3, 85 NRC 195 (2017)
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request that NRC require licensee to provide NRC with a written explanation as to why its license amendment request failed to include all the accurate information needed by the NRC Staff to complete its review is denied; DD-17-3, 85 NRC 195 (2017)
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consistent with its safety evaluation, NRC Staff is expected to promptly issue approval or denial of license transfer requests, even if an adjudicatory proceeding is pending; CLI-17-4, 85 NRC 59 (2017)
if NRC determines that a license amendment request does not satisfy NRC safety regulations and warrants a denial, NRC Staff will complete the necessary internal reviews, contact the licensee to discuss the determination to deny the application, and offer the licensee the opportunity to withdraw the application; DD-17-3, 85 NRC 195 (2017)
NRC may deny an application if a licensee or applicant fails to respond to a request for additional information within 30 days from the date of the request or within such other specified time; DD-17-3, 85 NRC 195 (2017)
NRC may deny an application if the deficiencies are such that the submittal and supplements fail to comply with the Atomic Energy Act or NRC regulations, as applicable; DD-17-3, 85 NRC 195 (2017)
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See Containment Design; Reactor Design; Seismic Design
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all currently operating U.S. nuclear power plants used historical seismic activity known at the time at the site and surrounding area for their design basis; DD-17-2, 85 NRC 136 (2017)
where design bases are deterministic in nature, a probabilistic risk assessment cannot be used to determine compliance with the plant's design bases; DD-17-2, 85 NRC 136 (2017)
DESIGN BASIS EARTHQUAKE
although requirements in 10 C.F.R. Part 100, Appendix A are fundamentally deterministic, the NRC process for determining the seismic design-basis ground motions for new reactor applications on or after January 10, 1997, uses a probabilistic seismic hazard analysis; DD-17-2, 85 NRC 136 (2017)
assumptions used to determine the DBE where there are multiple faults are discussed; DD-17-2, 85 NRC 136 (2017)
design bases for nuclear power plants are either developed in accordance with or to meet the intent of 10 C.F.R. Part 50, App. A, GDC 2 and Part 100, App. A; DD-17-2, 85 NRC 136 (2017)

licensing bases concepts of the operating basis earthquake and safe shutdown earthquake are defined in 10 C.F.R. Part 100, App. A; DD-17-2, 85 NRC 136 (2017)
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See also Operating Basis Earthquake; Safe Shutdown Earthquake
DESIGN CERTIFICATION
because proposed igniters conform to previously approved criteria, requiring combined license applicant to perform additional analyses would amount to imposing a new requirement on the certified design; CLI-17-2, 85 NRC 33 (2017)
certified AP1000 reactor design meets the requirements for a hydrogen control system; CLI-17-2, 85 NRC 33 (2017)
challenges to NRC regulations, including a design certification, in adjudicatory proceedings are prohibited in the absence of a waiver of that regulation; CLI-17-2, 85 NRC 33 (2017)
change to Tier 1 information in a proposed departure from a certified design requires an associated exemption from NRC regulations; CLI-17-8, 85 NRC 157 (2017)
combined license application may reference a certified reactor design; CLI-17-8, 85 NRC 157 (2017)
departures from a certified design that involve a change to the design as described in the rule certifying the design require an exemption from NRC regulations; CLI-17-8, 85 NRC 157 (2017)
during the AP1000 design certification process, locations of the hydrogen igniters and the location criteria, including the criterion that they be placed as close to the hydrogen source as feasible, were reviewed and found to meet regulatory requirements; CLI-17-2, 85 NRC 33 (2017)
new requirements cannot be imposed on a certified design absent special circumstances; CLI-17-2, 85 NRC 33 (2017)
NRC Staff must determine that the special circumstances warranting an exemption from regulations outweigh any decrease in safety resulting from the reduction in standardization that may result from the exemption; CLI-17-8, 85 NRC 157 (2017)
proposed departure from the certified design for ground response spectra for seismic structural loads and floor response spectra is discussed; CLI-17-8, 85 NRC 157 (2017)
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proposed departure from the certified design to incorporate an intermediate switchyard to change the location information for the main generator circuit breaker is discussed; CLI-17-8, 85 NRC 157 (2017)
proposed departure from the certified design to revise the liquid waste management system to simplify the design and construction of the cooling tower blow-down line is discussed; CLI-17-8, 85 NRC 157 (2017)
request for a safety analysis of the Fukushima accident, based on the agency's plans for a short-term and long-term lessons-learned review, was granted and portions of the petition relating to pending certified design documents, including the ESBWR amendment, were referred to NRC Staff as comments on the design certification rulemakings; CLI-17-8, 85 NRC 157 (2017)
where a combined license applicant references a certified design, changes to the design may be made in the combined license if proposed as a departure from the certified design, and some departures may be made without prior Commission approval; CLI-17-8, 85 NRC 157 (2017)
where an application for a combined license references a certified design, the scope of matters resolved for the subsequent combined license is governed by the relevant provisions addressing finality including 10 C.F.R. 52.39, 52.63, 52.98, 52.145, and 52.171; CLI-17-2, 85 NRC 33 (2017)
DISCLOSURE
Commission considers board's decision on sensitive unclassified non-safeguards information access request under a de novo standard; CLI-17-4, 85 NRC 59 (2017)
financial information determined to be a trade secret or confidential or privileged is withheld from public release based on an applicant's request; CLI-17-4, 85 NRC 59 (2017)

in an ordinary license transfer case, applicant retains discretion to negotiate with a potential party on the conditions and terms of a potential release of sensitive information, under a confidentiality or similar agreement; CLI-17-4, 85 NRC 59 (2017)
petitioner's concerns must be explicitly tied to the redacted information that it seeks; CLI-17-4, 85 NRC 59 (2017)
trade secrets and commercial or financial information obtained from a person and privileged or confidential in a license transfer application may be withheld from public disclosure; CLI-17-4, 85 NRC 59 (2017)
where license transfer applicant has not agreed to release of sensitive information, Commission role is to balance applicant's interest in protecting proprietary information with the petitioner's legitimate interest in obtaining information that is necessary to allow for meaningful participation in the adjudicatory proceeding; CLI-17-4, 85 NRC 59 (2017)
DISMISSAL OF CONTENTIONS
where the board does not see any adverse safety consequences of granting intervenors' request for dismissal of the remaining contentions, and sees no further role for the board in the proceeding, it grants intervenors' motion, dismisses remaining contentions without prejudice, and terminates the proceeding; LBP-17-3, 85 NRC 77 (2017)
DISMISSAL OF PROCEEDING
case is dismissed as moot when effective relief cannot be granted because of subsequent events; LBP-17-1, 85 NRC 3 (2017)
DOSE LIMITS
decommissioning screening values are surface soil concentrations of individual radionuclides that would be deemed in compliance with the 25 mrem/y (0.25 mSv/y) unrestricted release dose limit; LBP-17-4, 85 NRC 225 (2017)
EARLY SITE PERMIT APPLICATION
rules applicable to ESPs in 10 C.F.R. Parts 51, 52, and 100 do not require specific design information, but 10 C.F.R. 52.17(a)(1) lists what technical information must be included in the application; CLI-17-8, 85 NRC 157 (2017)
EARLY SITE PERMIT PROCEEDINGS
incomplete information is not necessarily a fatal flaw, or even a flaw at all, in an ESP proceeding; CLI-17-8, 85 NRC 157 (2017)
EARLY SITE PERMITS
NRC Staff must resolve its consideration of alternative sites at the ESP stage; CLI-17-8, 85 NRC 157 (2017)
permit holders may perform site preparation activities pursuant to the regulations in effect when the ESP application was submitted; CLI-17-8, 85 NRC 157 (2017)
presiding officers' decisions concerning construction permits (including ESPs, which are partial construction permits) are not effective until the Commission itself analyzes both the record and the presiding officer's decision and determines whether a stay of the permit is warranted; CLI-17-8, 85 NRC 157 (2017)
variance from the North Anna early site permit to account for elevation of the reactor and fuel building foundations in the site-specific probabilistic seismic hazard analysis and ground motion response in light of the Mineral, Virginia earthquake is discussed; CLI-17-8, 85 NRC 157 (2017)
EARTHQUAKE MOTION
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safety-related structures at nuclear power plants must be able to withstand the most severe earthquakes historically reported for the site and the area surrounding the site; CLI-17-8, 85 NRC 157 (2017)
soil-structure interaction input spectra must comply with minimum horizontal ground motion requirement in NRC regulations; CLI-17-8, 85 NRC 157 (2017)
variance from the North Anna early site permit to account for elevation of the reactor and fuel building foundations in the site-specific probabilistic seismic hazard analysis and ground motion response in light of the Mineral, Virginia earthquake is discussed; CLI-17-8, 85 NRC 157 (2017)

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proposed departure from the certified design to account for the site-specific seismological and geological conditions at the site is discussed; CLI-17-8, 85 NRC 157 (2017)
proposed departure from the certified design to incorporate an intermediate switchyard to change the location information for the main generator circuit breaker is discussed; CLI-17-8, 85 NRC 157 (2017)
proposed departure from the certified design to revise the liquid waste management system to simplify the design and construction of the cooling tower blow-down line is discussed; CLI-17-8, 85 NRC 157 (2017)
request for a safety analysis of the Fukushima accident, based on the agency's plans for a short-term and long-term lessons-learned review, was granted and portions of the petition relating to pending certified design documents, including the ESBWR amendment, were referred to NRC Staff as comments on the design certification rulemakings; CLI-17-8, 85 NRC 157 (2017)
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proposed departure from the certified design to incorporate an intermediate switchyard to change the location information for the main generator circuit breaker is discussed; CLI-17-8, 85 NRC 157 (2017)
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licensee's ongoing compliance with NRC emergency planning requirements may be challenged by a request for action; CLI-17-7, 85 NRC 111 (2017)
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NRC Staff is required to consult with the U.S. Fish and Wildlife Service and with the National Marine Fisheries Service in its environmental review of a combined license application; CLI-17-1, 85 NRC 1 (2017)
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agency's decision not to prosecute or enforce, whether through civil or criminal process, is a decision generally committed to an agency's absolute discretion; CLI-17-6, 85 NRC 96 (2017)
any NRC Staff decision to revoke a previous order relaxation decision would be supported by a reasoned basis; CLI-17-9, 85 NRC 213 (2017)
for purposes of notice and comment requirements under the Administrative Procedure Act, NRC statement of policy regarding its intent not to enforce a deadline is distinguished from an NRC action that actually amends licenses; CLI-17-6, 85 NRC 96 (2017)
relaxation does not change license terms but rather indicates that licensee has demonstrated sufficient cause to warrant NRC not enforcing certain terms of the order against licensee; CLI-17-9, 85 NRC 213 (2017)
should the NRC grant a relaxation request but determine later that the request either should not have been granted or should not be continued, NRC would not need to engage in a formal process to revoke the relaxation because the pertinent order would still be effectively intact and enforceable; CLI-17-9, 85 NRC 213 (2017)

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AEA hearing rights are limited to licensing proceedings only and an NRC decision not to enforce certain terms of an order is not an action listed in AEA § 189a; CLI-17-6, 85 NRC 96 (2017)
any person may file a request to institute a proceeding pursuant to section 2.202 to modify, suspend, or revoke a license, or for any other action as may be proper; CLI-17-7, 85 NRC 111 (2017)
exercising discretion in enforcement of a term of an order requiring additional safety measures is not analogous to affirmatively authorizing licensee to undertake some new, previously unlicensed activity; CLI-17-6, 85 NRC 96 (2017)
NRC decisions not to enforce particular requirements against particular licensees are not equivalent to license amendments and are not subject to hearing opportunities under the AEA; CLI-17-6, 85 NRC 96 (2017)
NRC may deny an application if a licensee or applicant fails to respond to a request for additional information within 30 days from the date of the request or within such other specified time; DD-17-3, 85 NRC 195 (2017)
NRC Staff has considerable latitude in choosing enforcement weapons; CLI-17-6, 85 NRC 96 (2017)
request for enforcement action on degradation of reactor vessel baffle-former bolts is denied; DD-17-1, 85 NRC 119 (2017)
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See also Notice of Enforcement Discretion
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removing the option to address site-specific order-implementation issues where there is good cause to do so could deter future Commission decisions to impose binding requirements by order, particularly with respect to broadly applicable orders; CLI-17-6, 85 NRC 96 (2017)
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government agency alone is empowered to develop the enforcement policy best calculated to achieve the ends contemplated by Congress and to allocate its available funds and personnel in such a way as to execute its policy efficiently and economically; CLI-17-6, 85 NRC 96 (2017)
insistence on strict regulatory compliance in all cases would rule out agency use of exemptions and enforcement discretion to relax rules in particular circumstances, a position at odds with maintaining regulatory flexibility and with NRC rules and practice; CLI-17-6, 85 NRC 96 (2017)
NRC Staff's primary and most effective recourse for poor-quality licensing submittals is to decline to accept the application and/or decline to grant the requested licensing action; DD-17-3, 85 NRC 195 (2017)
NRC's longstanding policy is to encourage licensees to consent to, rather than contest, enforcement actions; CLI-17-6, 85 NRC 96 (2017)
whether or not NRC issues violations for information that is incomplete or inaccurate in the context of licensing submittals is a matter of policy; DD-17-3, 85 NRC 195 (2017)
while licensing, inspection, and other NRC functions can help to anticipate and prevent violations and other safety problems from occurring, enforcement action is only taken when the noncompliance has already occurred; DD-17-3, 85 NRC 195 (2017)
ENFORCEMENT PROCEEDINGS
director of the NRC office with responsibility for the subject matter shall either institute the requested proceeding to modify, suspend, or revoke a license, or advise the person who made the request in writing that no proceeding will be instituted, in whole or in part, with respect to the request and the reason for the decision; DD-17-2, 85 NRC 136 (2017)
scope of hearing on an enforcement order is limited to whether the order should be sustained in the form it was issued; CLI-17-6, 85 NRC 96 (2017)
ENVIRONMENTAL ANALYSIS
agencies must use a systemic, interdisciplinary approach that will ensure the integrated use of the natural and social sciences and the environmental design arts in decision-making that may impact the environment; CLI-17-8, 85 NRC 157 (2017)

contention alleging that the hydrological impact of injecting toxic chemicals and liquid radwaste-laden water from the reactors directly into the aquifer system was not fully evaluated in the EIS is inadmissible; LBP-17-2, 85 NRC 14 (2017)
ENVIRONMENTAL IMPACT STATEMENT
contention that NEPA was not fully honored in spirit or letter by the NRC Staff which approved measures harmful to the environment is inadmissible; LBP-17-2, 85 NRC 14 (2017)
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when a COL application is docketed, petitioner seeking to raise contentions under the National Environmental Policy Act must base them on the applicant's environmental report; LBP-17-2, 85 NRC 14 (2017)
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NRC Staff is required to consult with the U.S. Fish and Wildlife Service and with the National Marine Fisheries Service in its environmental review of a combined license application; CLI-17-1, 85 NRC 1 (2017)
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proposed departure from the certified design to incorporate an intermediate switchyard to change the location information for the main generator circuit breaker is discussed; CLI-17-8, 85 NRC 157 (2017)
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U.S. government must be actively developing an alternative nuclear reactor fuel or target that can be used in the reactor for which an export of HEU is intended; CLI-17-3, 85 NRC 44 (2017)
various Executive Branch departments must be closely involved in the export licensing process and the President has the final word on nuclear exports; CLI-17-3, 85 NRC 44 (2017)
when determining whether unusual circumstances exist with respect to a proposed export, NRC gives great weight to the Executive Branch's judgments; CLI-17-3, 85 NRC 44 (2017)
whether petitioner's interest in an export license may be affected is determined by considering the nature of the alleged interest, how that issue relates to issuance or denial, possible effect of any order on that interest, whether the relief requested is within the Commission's authority, and whether relief would redress the alleged injury; CLI-17-3, 85 NRC 44 (2017)
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contention suggesting that NRC Staff exhibited improper bias in favor of nuclear energy in reviewing alternative sources of energy is inadmissible because it is outside the scope of the proceeding; LBP-17-2, 85 NRC 14 (2017)
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FINALITY
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if a license amendment were sought, the Atomic Energy Act and NRC implementing regulations would provide for public hearing opportunities in connection with the license amendment proceeding; CLI-17-9, 85 NRC 213 (2017)
if the license amendment application were granted, any subsequent NRC order that would have the effect of revoking the license amendment would itself trigger a hearing opportunity for the licensee; CLI-17-9, 85 NRC 213 (2017)
NRC decisions not to enforce particular requirements against particular licensees are not equivalent to license amendments and are not subject to hearing opportunities under the AEA; CLI-17-6, 85 NRC 96 (2017)
NRC shall grant a hearing upon the request of any person whose interest may be affected by the proceeding, and shall admit any such person as a party to such proceeding; LBP-17-4, 85 NRC 225 (2017)
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public participation is automatic with respect to all Commission actions that are potentially harmful to the public health and welfare; CLI-17-6, 85 NRC 96 (2017)
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substance of an NRC action, not the particular label the NRC chooses to assign to its action, determines entitlement to a section 189a hearing; CLI-17-6, 85 NRC 96 (2017)
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license applicant must perform an analysis that demonstrates containment structural integrity including in an accident that releases hydrogen generated by a 100% fuel clad-coolant reaction accompanied by burning; CLI-17-2, 85 NRC 33 (2017)
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contention that failed to explain how proposed hydrogen igniters could cause a flame to blow back into the containment and cause an explosion or why that risk would be unique to the two proposed igniters is inadmissible; CLI-17-2, 85 NRC 33 (2017)
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contention that fails to point to a specific deficiency in the FEIS beyond a conclusory assertion that its analysis of the effect of radial collector well pumping on the aquifer is uncertain and therefore deficient fails to raise a genuine dispute regarding a material issue of fact or law; LBP-17-2, 85 NRC 14 (2017)
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if applicant requests that review of its application resume, NRC Staff should reopen the scoping comment period, and should provide notice of that reopening in the *Federal Register*; CLI-17-10, 85 NRC 221 (2017)
petitioners' request that NRC direct applicant to submit a new application containing all revisions that it has made since it filed its original application, rather than submitting only change-pages, when it requests that NRC Staff restart its review is declined; CLI-17-10, 85 NRC 221 (2017)
INDEPENDENT SPENT FUEL STORAGE INSTALLATION PROCEEDINGS
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merely asserting an institutional interest in providing information to the public is insufficient to show an affected interest; CLI-17-3, 85 NRC 44 (2017)
persons without an affected interest on an export license are not as likely as persons with an affected interest to contribute to Commission decision making, show that a hearing would be in the public interest, and assist in making the statutory determinations; CLI-17-3, 85 NRC 44 (2017)
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whether petitioner's interest in an export license may be affected is determined by considering the nature of the alleged interest, how that issue relates to issuance or denial, possible effect of any order on that interest, whether the relief requested is within the Commission's authority, and whether relief would redress the alleged injury; CLI-17-3, 85 NRC 44 (2017)
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Commission considers the public interest and whether petitioner could assist in making the required statutory and regulatory determinations when evaluating whether to grant a hearing or intervention on an export license application; CLI-17-3, 85 NRC 44 (2017)
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if a license amendment were sought, the Atomic Energy Act and NRC implementing regulations would provide for public hearing opportunities in connection with the proceeding; CLI-17-9, 85 NRC 213 (2017)
if an application were granted, any subsequent NRC order that would have the effect of revoking the license amendment which would itself trigger a hearing opportunity for the licensee; CLI-17-9, 85 NRC 213 (2017)
if licensee seeks more formal and durable protections against subsequent revocation by the NRC, it remains free to apply for a license amendment instead of requesting order relaxation; CLI-17-9, 85 NRC 213 (2017)
it would be inconsistent with the AEA to interpret the relaxation process described in the good cause provision as serving the same functional purpose as the license amendment process; CLI-17-6, 85 NRC 96 (2017)
NRC decisions not to enforce particular requirements against particular licensees are not equivalent to license amendments and are not subject to hearing opportunities under the AEA; CLI-17-6, 85 NRC 96 (2017)
situations in which the Commission amends a license to require additional or better safety measures, which need not involve public hearing rights, are distinguished from situations in which the Commission proposes to amend a license to remove a restriction upon the licensee, which do trigger public hearing rights; CLI-17-6, 85 NRC 96 (2017)
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applicant may revise its application several times over the course of NRC review, and Staff has broad discretion to request that revisions be provided in a way that facilitates Staff's review and the public's understanding of the application; CLI-17-10, 85 NRC 221 (2017)
NRC has seldom issued violations for information submitted in the licensing process; DD-17-3, 85 NRC 195 (2017)
NRC Staff is directed to notify petitioners' counsel within 3 business days of any request to have NRC resume its review of the application; CLI-17-10, 85 NRC 221 (2017)
NRC Staff's primary and most effective recourse for poor-quality licensing submittals is to decline to accept the application and/or decline to grant the requested licensing action; DD-17-3, 85 NRC 195 (2017)
petitioners' request that NRC direct applicant to submit a new application containing all revisions that it has made since it filed its original application, rather than submitting only change-pages, when it requests that NRC Staff restart its review is declined; CLI-17-10, 85 NRC 221 (2017)
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because every license the Commission issues is subject to the possibility of additional requirements, moving forward with a licensing action does not foreclose implementation of any new rules originating from a pending rulemaking petition; CLI-17-5, 85 NRC 87 (2017)
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in an ordinary case, applicant retains discretion to negotiate with a potential party the conditions and terms of a potential release of sensitive information, under a confidentiality or similar agreement; CLI-17-4, 85 NRC 59 (2017)
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trade secrets and commercial or financial information obtained from a person and privileged or confidential in a license transfer application may be withheld from public disclosure; CLI-17-4, 85 NRC 59 (2017)
where license transfer applicant has not agreed to release of sensitive information, Commission role is to balance applicant's interest in protecting proprietary information with the petitioner's legitimate interest in obtaining information that is necessary to allow for meaningful participation in the adjudicatory proceeding; CLI-17-4, 85 NRC 59 (2017)
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provisions of 10 C.F.R. Part 2, Subpart M, together with the generally applicable intervention provisions in 10 C.F.R. Part 2, Subpart C, govern adjudicatory proceedings on a license transfer application; CLI-17-4, 85 NRC 59 (2017)
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LICENSE TRANSFERS
Commission retains authority to rescind or condition an approved license transfer based on the outcome of any pending proceeding; CLI-17-4, 85 NRC 59 (2017)
consistent with its safety evaluation, NRC Staff is expected to promptly issue approval or denial of license transfer requests, even if an adjudicatory proceeding is pending; CLI-17-4, 85 NRC 59 (2017)

issues that are not pursued in request for a stay of the effectiveness of NRC Staff action on a license transfer application, to the extent that they might be understood to be pending, are denied as moot; CLI-17-4, 85 NRC 59 (2017)
prior written NRC consent is required for a direct or indirect license transfer; CLI-17-4, 85 NRC 59 (2017)
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presiding officers' decisions concerning construction permits (including early site permits, which are partial construction permits) are not effective until the Commission itself analyzes both the record and the presiding officer's decision and determines whether a stay of the permit is warranted; CLI-17-8, 85 NRC 157 (2017)
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board lacked authority to issue a stay; CLI-17-5, 85 NRC 87 (2017)
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specifications for limiting combustible gases in water-cooled reactors licensed after October 16, 2003, are provided in 10 C.F.R. 50.44(c); CLI-17-2, 85 NRC 33 (2017)
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all safety and environmental matters relevant to the combined license application, except those resolved in the contested combined license proceeding, are subject to Commission review in the uncontested proceeding; CLI-17-8, 85 NRC 157 (2017)
Commission does not review a combined license application de novo, but rather inquires whether NRC Staff's review was sufficient to support the findings on safety and environmental issues in 10 C.F.R. 52.97(a) and 51.107(a); CLI-17-1, 85 NRC 1 (2017); CLI-17-8, 85 NRC 157 (2017)
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licensee need not know that a statement is false at the time, an omission can constitute material false statement, and materiality is determined by whether information could influence NRC Staff in making a regulatory decision; DD-17-3, 85 NRC 195 (2017)
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licensee need not know that a statement is false at the time, an omission can constitute material false statement, and materiality is determined by whether information could influence NRC Staff in making a regulatory decision; DD-17-3, 85 NRC 195 (2017)
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intervention petitioner must show that its actual or threatened injuries can be cured by some action of the tribunal; LBP-17-4, 85 NRC 225 (2017)
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proper method for seeking a license modification for safety reasons is to file a petition for enforcement rather than requesting an adjudicatory hearing; CLI-17-6, 85 NRC 96 (2017)
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case is dismissed as moot when effective relief cannot be granted because of subsequent events; LBP-17-1, 85 NRC 3 (2017)
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affidavits accompanying a motion must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; CLI-17-7, 85 NRC 111 (2017)
brief reference to environmental justice in its motion to reopen on disparity between potassium iodide tablet distribution in the U.S. and Canadian portions of the EPZ fails to raise an argument that would materially alter the SAMA analysis; LBP-17-1, 85 NRC 3 (2017)
burden of satisfying the reopening requirements is a heavy one, and proponents bear the burden of meeting all 10 C.F.R. 2.326(a)-(b) requirements; LBP-17-1, 85 NRC 3 (2017)
Commission will defer to licensing board determinations on threshold matters, including rulings on motions to reopen, absent error of law or abuse of discretion; CLI-17-7, 85 NRC 111 (2017)
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motion 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-17-1, 85 NRC 3 (2017)
motion must be timely, although there is a timeliness exception for motions that present an issue that is exceptionally grave; CLI-17-7, 85 NRC 111 (2017)
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proponent bears a heavy burden; CLI-17-7, 85 NRC 111 (2017)

proponent must 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; CLI-17-7, 85 NRC 111 (2017)
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where petitioner has not met the reopening standards, the board need not rule on admissibility of the proposed new contention; CLI-17-7, 85 NRC 111 (2017)
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NRC must assess the relationship between short-term uses and long-term productivity of the environment (including benefits of operating new units), consider alternatives, and describe unavoidable adverse environmental impacts and irreversible and irretrievable commitments of resources associated with the proposed action; CLI-17-8, 85 NRC 157 (2017)
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NRC Staff is required to consult with NMFS in its environmental review of a combined license application; CLI-17-1, 85 NRC 1 (2017)
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Commission directs that when NRC Staff publishes its notice withdrawing the opportunity to request a hearing on a license application, it also must clarify that its environmental review and scoping work are likewise suspended; CLI-17-10, 85 NRC 221 (2017)

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NRC Staff is directed to notify petitioners' counsel within 3 business days of any request to have NRC resume its review of the application; CLI-17-10, 85 NRC 221 (2017)
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during NRC Staff review of a license amendment application, applicant may be required to supply additional information; DD-17-3, 85 NRC 195 (2017)
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NRC must assess the relationship between short-term uses and long-term productivity of the environment (including benefits of operating new units), consider alternatives, and describe unavoidable adverse environmental impacts and irreversible and irretrievable commitments of resources associated with the proposed action; CLI-17-8, 85 NRC 157 (2017)
NRC Staff is directed to notify petitioners' counsel within 3 business days of any request to have NRC resume its review of the application; CLI-17-10, 85 NRC 221 (2017)
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NRC Staff's sensitivity analysis of new information with respect to severe accident mitigation alternatives is discussed; CLI-17-8, 85 NRC 157 (2017)
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request that NRC dismiss the application and stop the environmental review because the plan of operations does not comport with the Nuclear Waste Policy Act may be raised in an intervention petition after the hearing opportunity is re-noticed; CLI-17-10, 85 NRC 221 (2017)
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Commission retains authority to rescind or condition an approved license transfer based on the outcome of any pending proceeding; CLI-17-4, 85 NRC 59 (2017)
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if the burden of satisfying the reopening requirements were not deliberately heavy, there would be little hope of completing administrative proceedings if each newly arising allegation required an agency to reopen its hearings; LBP-17-1, 85 NRC 3 (2017)
See also Motions to Reopen
REPLY BRIEFS
appellant does not have the right to reply to answers, but the Commission may review a reply as a matter of discretion; CLI-17-5, 85 NRC 87 (2017)
reply cannot expand the scope of the arguments set forth in the original hearing request; LBP-17-1, 85 NRC 3 (2017)
REPLY TO ANSWER TO MOTION
petitioners have a right to reply to NRC Staff and licensee's answers; LBP-17-4, 85 NRC 225 (2017)
REPORTING REQUIREMENTS
any changes to licensee's quality assurance commitments would need to be justified and would be inspectable by NRC inspectors; DD-17-1, 85 NRC 119 (2017)
event involving an unanalyzed condition due to degraded reactor vessel baffle-former bolts is reportable; DD-17-1, 85 NRC 119 (2017)
REQUEST FOR ACTION
any person may file a request to institute a proceeding pursuant to section 2.202 to modify, suspend, or revoke a license, or for any other action as may be proper; CLI-17-7, 85 NRC 111 (2017)
director of the NRC office with responsibility for the subject matter shall either institute the requested proceeding to modify, suspend, or revoke a license, or advise the person who made the request in

writing that no proceeding will be instituted, in whole or in part, with respect to the request and the reason for the decision; DD-17-2, 85 NRC 136 (2017); DD-17-3, 85 NRC 195 (2017)
licensee's ongoing compliance with NRC emergency planning requirements may be challenged by a request for action; CLI-17-7, 85 NRC 111 (2017)
proper method for seeking a license modification for safety reasons is to file a petition for enforcement rather than requesting an adjudicatory hearing; CLI-17-6, 85 NRC 96 (2017)
request for enforcement action on degradation of reactor vessel baffle-former bolts is denied; DD-17-1, 85 NRC 119 (2017)
request for immediate suspension of plant operations because of concerns about the plant's operational safety and its ability to safely shut down in the event of an earthquake caused by nearby faults is denied; DD-17-2, 85 NRC 136 (2017)
request that NRC issue a demand for information requiring licensee to provide NRC with a written explanation as to why its license amendment request failed to include all the accurate information needed by the NRC staff to complete its review is denied; DD-17-3, 85 NRC 195 (2017)
REQUEST FOR ADDITIONAL INFORMATION
during NRC Staff review of a license amendment application, applicant may be required to supply additional information; DD-17-3, 85 NRC 195 (2017)
NRC may at any time after the filing of the original application, and before the expiration of the license, require further written statements in order to enable the Commission to determine whether the application should be granted or denied; DD-17-3, 85 NRC 195 (2017)
NRC may deny an application if licensee or applicant fails to respond to a request for additional information within 30 days from the date of the request or within such other specified time; DD-17-3, 85 NRC 195 (2017)
NRC Staff issued a request for information following the Fukushima accident to confirm the appropriateness of the hazards assumed for U.S. plants and each plant's ability to protect against them; DD-17-2, 85 NRC 136 (2017)
NRC Staff requests for additional information are not necessarily indicative of a violation; DD-17-3, 85 NRC 195 (2017)
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See Appellate Review; Environmental Review; NRC Staff Review; Standard of Review
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appellant does not have the right to reply to answers, but the Commission may review a reply as a matter of discretion; CLI-17-5, 85 NRC 87 (2017)
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because every license the Commission issues is subject to the possibility of additional requirements, moving forward with a licensing action does not foreclose the implementation of any new rules originating from a pending rulemaking petition; CLI-17-5, 85 NRC 87 (2017)
contentions raising claims substantively identical to those raised by a pending rulemaking petition are barred because they are or are about to become the subject of general rulemaking; CLI-17-5, 85 NRC 87 (2017)
difference between a proposed and final rule will not invalidate the notice as long as the final rule is a logical outgrowth of the one proposed; CLI-17-8, 85 NRC 157 (2017)
even if a contention is timely filed, it would be inadmissible if it sought to litigate the subject of an ongoing rulemaking; CLI-17-8, 85 NRC 157 (2017)
final rule need not be identical to the original proposed rule, the whole rationale of notice and comment resting on the expectation that the final rules will be somewhat different and improved from rules originally proposed by the agency; CLI-17-8, 85 NRC 157 (2017)
"logical outgrowths" are generally considered to determine whether an agency provided sufficient notice of a proposed rule; CLI-17-8, 85 NRC 157 (2017)
petition for rulemaking is a more appropriate avenue for resolving generic concerns about the Baker-Just equation than is a site-specific contention; CLI-17-5, 85 NRC 87 (2017)
petitioner may request that the Commission suspend all or any part of any licensing proceeding to which the petitioner is a participant pending disposition of a petition for rulemaking; CLI-17-5, 85 NRC 87 (2017)

when an issue is resolved generically a petitioner's remedy is through the rulemaking process rather than adjudication; CLI-17-2, 85 NRC 33 (2017)
RULES OF PRACTICE
admissible contention must fall within the scope of the proceeding and be material to the findings that the NRC must make; CLI-17-4, 85 NRC 59 (2017)
admissible contention must meet six pleading requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi); LBP-17-4, 85 NRC 225 (2017)
affidavits accompanying a motion to reopen must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; LBP-17-1, 85 NRC 3 (2017)
burden of satisfying the reopening requirements is a heavy one, and proponents bear the burden of meeting all of the 10 C.F.R. 2.326(a)-(b) requirements; LBP-17-1, 85 NRC 3 (2017)
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failure to provide supporting information mandates rejection of a contention; LBP-17-2, 85 NRC 14 (2017)
failure to satisfy any of the requirements of 10 C.F.R. 2.309(f)(1)(i)-(vi) is sufficient to render a contention inadmissible; LBP-17-2, 85 NRC 14 (2017); LBP-17-4, 85 NRC 225 (2017)
failure to satisfy either the timeliness standard or the contention admissibility standard requires that the board reject a proffered contention; LBP-17-2, 85 NRC 14 (2017)
good cause for filing new or amended contentions after the deadline must be demonstrated by showing that information on which the filing is based was not previously available and is materially different from information previously available and the filing has been submitted in a timely fashion based on availability of the subsequent information; LBP-17-1, 85 NRC 3 (2017)
level of support required for a motion to reopen is greater than that required for a contention under the general admissibility requirements; CLI-17-7, 85 NRC 111 (2017)
motion to reopen must 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; CLI-17-7, 85 NRC 111 (2017)
motion to reopen must be accompanied by affidavits that set forth the factual and/or technical bases for movant's claim that the criteria have been satisfied; CLI-17-7, 85 NRC 111 (2017); LBP-17-1, 85 NRC 3 (2017)
motion to reopen 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-17-1, 85 NRC 3 (2017)
motion to reopen must be timely, although there is a timeliness exception for motions that present an issue that is exceptionally grave; CLI-17-7, 85 NRC 111 (2017)
motion to reopen that pertains to a new contention must also meet the timeliness requirements in 10 C.F.R. 2.309(c) and show that the new contention is admissible; CLI-17-7, 85 NRC 111 (2017); LBP-17-1, 85 NRC 3 (2017)
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 unless the Commission grants a petition for waiver of the rule in the particular proceeding; CLI-17-5, 85 NRC 87 (2017)
party or participant that has already satisfied the requirements for standing under 10 C.F.R. 2.309(d) in the same proceeding in which new or amended contentions are filed does not need to do so again; LBP-17-2, 85 NRC 14 (2017)
petition for review of a licensing board decision may be granted at the Commission's discretion, giving due weight to the existence of a substantial question with respect to the considerations of 10 C.F.R. 2.341(b)(4)(i)-(v); CLI-17-7, 85 NRC 111 (2017)
petition to intervene must set forth with particularity the contentions petitioner seeks to have litigated; CLI-17-4, 85 NRC 59 (2017)

petition to intervene that is filed after the deadline for proffering contentions based on the environmental report will not be entertained absent a determination by the licensing board that participant has demonstrated good cause; LBP-17-2, 85 NRC 14 (2017)
petitioner whose hearing request has been wholly denied has the right to appeal; CLI-17-5, 85 NRC 87 (2017)
petitioners have a right to reply to NRC Staff and licensee's answers; LBP-17-4, 85 NRC 225 (2017)
petitioners may present contentions that raise issues of law; CLI-17-10, 85 NRC 221 (2017)
petitioners must meet the standing requirements in 10 C.F.R. 2.309(d); LBP-17-4, 85 NRC 225 (2017)
presiding officers' decisions concerning construction permits (including early site permits, which are partial construction permits) are not effective until the Commission itself analyzes both the record and the presiding officer's decision and determines whether a stay of the permit is warranted; CLI-17-8, 85 NRC 157 (2017)
pro se petitioner is expected to learn NRC's adjudicatory process and show regard for procedural rules and standards; CLI-17-4, 85 NRC 59 (2017)
proponent of a motion to reopen bears a heavy burden; CLI-17-7, 85 NRC 111 (2017)
provisions of 10 C.F.R. Part 2, Subpart M, together with the generally applicable intervention provisions in 10 C.F.R. Part 2, Subpart C, govern adjudicatory proceedings on a license transfer application; CLI-17-4, 85 NRC 59 (2017)
requirements for an admissible contention are provided in 10 C.F.R. 2.309(f)(1)(i)-(vi); CLI-17-4, 85 NRC 59 (2017)
sole ground for waiver of a regulation is that special circumstances with respect to the subject matter of a particular proceeding are such that the application of the rule or regulation would not serve the purposes for which the rule was adopted; CLI-17-5, 85 NRC 87 (2017)
to participate in an NRC licensing proceeding, in addition to demonstrating standing, petitioner must also proffer at least one timely and admissible contention; LBP-17-2, 85 NRC 14 (2017); LBP-17-4, 85 NRC 225 (2017)
where petitioner has not met the reopening standards, the board need not rule on admissibility of the proposed new contention; CLI-17-7, 85 NRC 111 (2017)
SAFE SHUTDOWN EARTHQUAKE
licensing basis concepts of the operating basis earthquake and safe shutdown earthquake are defined in 10 C.F.R. Part 100, App. A; DD-17-2, 85 NRC 136 (2017)
request for immediate suspension of plant operations because of concerns about the plant's operational safety and its ability to safely shut down in the event of an earthquake caused by nearby faults is denied; DD-17-2, 85 NRC 136 (2017)
SAFEGUARDS INFORMATION
notice of opportunity for hearing is to provide a procedure for requesting access to sensitive unclassified non-safeguards information and safeguards information; CLI-17-10, 85 NRC 221 (2017)
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request for analysis of the Fukushima accident, based on the agency's plans for a short-term and long-term lessons-learned review, was granted and portions of the petition relating to pending certified design documents, including the ESBWR amendment, were referred to NRC Staff as comments on the design certification rulemakings; CLI-17-8, 85 NRC 157 (2017)
SAFETY ISSUES
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where the board does not see any adverse safety consequences of granting intervenors' request for dismissal of the remaining contentions, and sees no further role for the board in the proceeding, it grants intervenors' motion, dismisses remaining contentions without prejudice, and terminates the proceeding; LBP-17-3, 85 NRC 77 (2017)
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See Common Defense and Security

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all currently operating U.S. nuclear power plants used historical seismic activity known at the time at the site and surrounding area for their design basis; DD-17-2, 85 NRC 136 (2017)
although requirements in 10 C.F.R. Part 100, Appendix A are fundamentally deterministic, the NRC process for determining the seismic design-basis ground motions for new reactor applications on or after January 10, 1997, uses a probabilistic analysis; DD-17-2, 85 NRC 136 (2017)
assumptions used to determine the design basis earthquake where there are multiple faults are discussed; DD-17-2, 85 NRC 136 (2017)
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in an ordinary license transfer case, applicant retains discretion to negotiate with a potential party the conditions and terms of a potential release of sensitive information, under a confidentiality or similar agreement; CLI-17-4, 85 NRC 59 (2017)
notice of opportunity for hearing is to provide a procedure for requesting access to sensitive unclassified non-safeguards information and safeguards information; CLI-17-10, 85 NRC 221 (2017)
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trade secrets and commercial or financial information obtained from a person and privileged or confidential in a license transfer application may be withheld from public disclosure; CLI-17-4, 85 NRC 59 (2017)
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analysis examines whether particular hardware or procedural changes may be cost-beneficial to implement, given the degree of risk reduction that reasonably could be expected from the change; CLI-17-7, 85 NRC 111 (2017)
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NRC Staff's sensitivity analysis of new information with respect to SAMAs is discussed; CLI-17-8, 85 NRC 157 (2017)
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requirements for Severe Accident Management Guidelines are contrary to NRC policy; CLI-17-8, 85 NRC 157 (2017)
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Commission will defer to licensing board determinations on threshold matters, including rulings on motions to reopen, absent error of law or abuse of discretion; CLI-17-7, 85 NRC 111 (2017)
in an uncontested proceeding, Commission considers whether review of the application by NRC Staff has been adequate to support the findings set forth in these regulations; CLI-17-8, 85 NRC 157 (2017)
petition for review of a licensing board decision may be granted at the Commission's discretion, giving due weight to the existence of a substantial question with respect to the considerations of 10 C.F.R. 2.341(b)(4)(i)-(v); CLI-17-7, 85 NRC 111 (2017)
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Commission recognizes a proximity presumption in certain proceedings, including COL applications, for petitioners living within 50 miles of the facility at issue, which effectively dispenses with the need to make an affirmative showing of injury, causation, and redressability; LBP-17-2, 85 NRC 14 (2017)
contemporaneous judicial concepts of standing are applied in NRC proceedings; LBP-17-2, 85 NRC 14 (2017)

it is generally sufficient if petitioner provides plausible factual allegations that satisfy each element of standing; LBP-17-4, 85 NRC 225 (2017)
licensing board is to construe intervention petition in favor of petitioner for purposes of standing; LBP-17-4, 85 NRC 225 (2017)
party or participant that has already satisfied the requirements for standing under 10 C.F.R. 2.309(d) in the same proceeding in which new or amended contentions are filed does not need to do so again; LBP-17-2, 85 NRC 14 (2017)
petitioner bears the burden to provide facts sufficient to establish standing; LBP-17-4, 85 NRC 225 (2017)
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to establish standing to raise a materials license amendment challenge, petitioners must show a distinct new harm or threat apart from the activities already licensed; LBP-17-4, 85 NRC 225 (2017)
to establish traditional standing in a materials license proceeding, petitioner must allege an actual or threatened, concrete and particularized injury that is fairly traceable to the challenged action, falls among the general interests protected by applicable statutes, and is likely to be redressed by a favorable decision; LBP-17-4, 85 NRC 225 (2017)
to participate in NRC licensing proceedings, petitioner must establish standing; LBP-17-2, 85 NRC 14 (2017)
under the proximity-plus approach, petitioner must demonstrate that the proposed action involves a significant source of radioactivity producing an obvious potential for offsite consequences; LBP-17-4, 85 NRC 225 (2017)
unless an application poses an obvious potential for offsite radiological consequences, mere proximity to a site is insufficient to give rise to a presumption of standing; CLI-17-4, 85 NRC 59 (2017)
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STANDING TO INTERVENE, REPRESENTATIONAL
petitioner cannot establish individual standing based on the interest of another person or represent them without express authorization; LBP-17-4, 85 NRC 225 (2017)
petitioner must show that at least one member would otherwise have standing to sue in his or her own right, the interests that the organization seeks to protect are germane to its purpose, and neither the claim asserted nor the relief requested requires an individual member to participate in the organization's lawsuit; LBP-17-2, 85 NRC 14 (2017)
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Administrative Procedure Act § 705 applies only to judicial stays; CLI-17-5, 85 NRC 87 (2017)
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STAY OF EFFECTIVENESS
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combined license applicant must perform an analysis that demonstrates containment structural integrity before adding two new igniters to its hydrogen control system; CLI-17-2, 85 NRC 33 (2017)
STRUCTURAL INTEGRITY
combined license applicant must perform an analysis that demonstrates containment structural integrity before adding two new igniters to its hydrogen control system; CLI-17-2, 85 NRC 33 (2017)
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Commission suspended issuance of final licensing decisions until the court's remand on temporary storage of radioactive waste was appropriately addressed and held any related contentions in abeyance until further order; CLI-17-8, 85 NRC 157 (2017)
merely raising the specter of a nuclear accident does not demonstrate irreparable harm; CLI-17-5, 85 NRC 87 (2017)
petitioner may request that the Commission suspend all or any part of any licensing proceeding to which the petitioner is a participant pending disposition of a petition for rulemaking; CLI-17-5, 85 NRC 87 (2017)
this drastic action that will be granted only if the Commission finds that moving forward with the proceeding presents an immediate threat to public health and safety, would be an obstacle to fair and efficient rulemaking, or would prevent implementation of the contemplated policy or rule change; CLI-17-5, 85 NRC 87 (2017)
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TERMINATION OF PROCEEDING
where the board does not see any adverse safety consequences of granting intervenors' request for dismissal of the remaining contentions, and sees no further role for the board in the proceeding, it grants intervenors' motion, dismisses remaining contentions without prejudice, and terminates the proceeding; LBP-17-3, 85 NRC 77 (2017)

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specific performance criteria are set for emergency core cooling systems of reactors that limit the calculated peak cladding temperature, the extent of cladding oxidation, and the amount of hydrogen generation following a loss-of-coolant accident; CLI-17-5, 85 NRC 87 (2017)
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NRC Staff requests for additional information are not necessarily indicative of a violation; DD-17-3, 85 NRC 195 (2017)
whether a particular issue constitutes a violation of a regulation is determined by the facts and circumstances in a particular case; DD-17-3, 85 NRC 195 (2017)
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Commission directs that when NRC Staff publishes its notice withdrawing the opportunity to request a hearing on this license application, it also must clarify that its environmental review and scoping work are likewise suspended; CLI-17-10, 85 NRC 221 (2017)
if NRC determines that a license amendment request does not satisfy NRC safety regulations and warrants a denial, NRC Staff will complete the necessary internal reviews, contact the licensee to discuss the determination to deny the application, and offer the licensee the opportunity to withdraw the application; DD-17-3, 85 NRC 195 (2017)
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affidavits accompanying a motion to reopen must be given by competent individuals with knowledge of the facts alleged, or by experts in the disciplines appropriate to the issues raised; CLI-17-7, 85 NRC 111 (2017); LBP-17-1, 85 NRC 3 (2017)

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